NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

CASE NAME: Phase III Recycled Water Project
CASE NO: EIA 12-02

PROJECT LOCATION: The project is located within the Carlsbad Municipal Water District (CMWD) service area and includes a small component that would extend service to a portion of Vista and Oceanside. The project components will occur within public rights-of-way and within existing CMWD facilities.

PROJECT DESCRIPTION: Implementation of the 2012 Recycled Water Master Plan (RWMP) is divided into three phases: Existing (Phase I and Phase II), Phase III, and Build-out. The proposed project, Phase III, would expand CMWD's recycled water system to the north area of Carlsbad and begin initial expansion into neighboring water service agencies. The Phase III project components would be completed between 2014 and 2020. The Phase III project would expand the treatment capacity within the Carlsbad Water Recycling Facility from 4.0 mgd to 8.0 mgd by installing additional filtration units and chlorine contact basins. The Phase III project would also install 96,600 linear feet of pipeline, relocate or construct a new storage tank, convert existing potable water facilities to recycled water use, and retrofit landscape irrigation water systems to use recycled water in eight expansion segment locations throughout the project area.

PROPOSED DETERMINATION: The City of Carlsbad has conducted an environmental review of the above described project pursuant to the Guidelines for Implementation of the California Environmental Quality Act (CEQA) and the Environmental Protection Ordinance of the City of Carlsbad. As a result of said review, the initial study (EIA Part 2) identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made before the proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the City that the project "as revised" may have a significant effect on the environment. Therefore, a **Mitigated Negative Declaration** will be recommended for adoption by the Board of Directors of the Carlsbad Municipal Water District.

A copy of the initial study (EIA Part 2) documenting reasons to support the proposed Mitigated Negative Declaration is on file in the Planning Division, 1635 Faraday Avenue, Carlsbad, California 92008. The Initial Study is also available on the City's website at www.carlsbadca.gov/services/departments/planning/Pages/agendas-minutes-and-notices.aspx (Look under "Notice of Intent" for a link to "EIA 12-02"). Comments from the public are invited. Pursuant to Section 15204 of the CEQA Guidelines, in reviewing Mitigated Negative Declarations, persons and public agencies should focus on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) identify the specific effect; (2) explain why they believe the effect would occur; and (3) explain why they believe the effect would be significant. Please submit comments in writing to the Planning Division within 30 days of the date of this notice.

The proposed project and Mitigated Negative Declaration are subject to review and approval/adoption by the Board of Directors of the Carlsbad Municipal Water District. Additional public notices will be issued when those public hearings are scheduled. If you have any questions, please call Barbara Kennedy, Associate Planner in the Planning Division at (760) 602-4626 or via e-mail at barbara.kennedy@carlsbadca.gov.

PUBLIC REVIEW PERIOD September 19, 2012 – October 19, 2012
PUBLISH DATE September 19, 2012

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: CMWD Phase III Recycled Water Project

Lead Agency: Carlsbad Municipal Water District (CWMD) Contact Person: Barbara Kennedy

Mailing Address: 1635 Faraday Avenue Phone: (760) 602-4626

City: Carlsbad Zip: 92008 County: San Diego

Project Location: County: San Diego City/Nearest Community: Carlsbad

Cross Streets: Interstate 5 and Palomar Airport Road Zip Code: 92008

Longitude/Latitude (degrees, minutes and seconds): 33 ° 8 ′ 18 ″ N / 117 ° 13 ′ 37 ″ W Total Acres: N/A

Assessor's Parcel No.: N/A Section: N/A Twp.: N/A Range: N/A Base: N/A

Within 2 Miles: State Hwy #: 78 Waterways: Buena Vista Creek, Agua Hedionda Creek, San Marcos

Airports: McClellan-Palomar, Oceanside Railways: AT&SF and Coaster Schools: Carlsbad Unified District

Document Type:

CEQA: ☐ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☒ Mit Neg Dec Other: ☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other: CIP Project

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☒ Water Facilities: Type Pipelines, Tank MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☐ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☐ Water Quality
☐ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☐ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☐ Noise ☐ Solid Waste ☐ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☒ Toxic/Hazardous ☐ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☐ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

N/A

Project Description: *(please use a separate page if necessary)*

The Phase III project would expand the treatment capacity (from 4.0 mgd to 8.0 mgd) within the Carlsbad Water Recycling Facility by installing additional filtration units and chlorine contact basins. The Phase III project would also install 96,600 linear feet of pipelines, relocate or construct a new storage tank, convert existing potable water facilities to recycled water use, and retrofit landscape irrigation water systems to use recycled water in eight expansion segment locations throughout the project area.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

____	Air Resources Board	____	Office of Historic Preservation
____	Boating & Waterways, Department of	____	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
____	California Highway Patrol	____	Pesticide Regulation, Department of
X	Caltrans District #11	____	Public Utilities Commission
____	Caltrans Division of Aeronautics	X	Regional WQCB #9
____	Caltrans Planning	X	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
x	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mtns. Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	X	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
X	Fish & Game Region #5	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
____	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
____	Health Services, Department of	____	Other:
____	Housing & Community Development	____	Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date September 19, 2012 Ending Date October 19, 2012

Lead Agency (Complete if applicable):

Consulting Firm: Atkins
Address: 3670 Carmel Mountain Rd, Ste 300
City/State/Zip: San Diego, CA 92130
Contact: Joanne Dramko
Phone: (858)514-1030

Applicant:
Address:
City/State/Zip:
Phone:

Signature of Lead Agency Representative: Barbara Kennedy **Date:** 9/12/2012

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

Carlsbad Municipal Water District
Phase III Recycled Water Project

Draft Initial Study/
Mitigated Negative Declaration

EIA 12-02

September 19, 2012

Prepared for:

Carlsbad Municipal Water District
1635 Faraday Avenue
Carlsbad, California 92008

Prepared by:

3570 Carmel Mountain Road, Suite 300
San Diego, California 92130
Atkins Project No.: 100024978

Contents

Appendices

This page intentionally left blank.

Mitigated Negative Declaration

Case Number: EIA 12-02

Project Title: Phase III Recycled Water Project

Project Location

The Phase III Recycled Water Project (Phase III project) is located in the City of Carlsbad (City) in the County of San Diego, California, within the Carlsbad Municipal Water District (CMWD) service area (see Figure 1). A small portion of the project (Expansion Segment 4A) is located in the City of Vista and a small component (Expansion Segment 5) is located in the City of Oceanside. The project components will occur within public rights-of-way (ROW) and easements. The locations of individual components are shown in Figure 2.

The Carlsbad Water Recycling Facility (CWRF) Expansion would be installed at the existing CWRF, located at 6220 Avenida Encinas, Carlsbad, CA, 92011. The new or relocated storage tank would be located at the existing "Twin D" tank site near the intersection of Poinsettia Lane and Black Rail Road. Expansion Segment 1A (ES 1A) is located in existing roadways south of Palomar Airport Road, west of El Camino Real, and along Camino Via Roble. Expansion Segment 2 (ES 2) is located south of Agua Hedionda Lagoon, west of Interstate 5, along the Atchison Topeka & Santa Fe (AT&SF) railroad track and Avenida Encinas. Expansion Segment 4A (ES 4A) is located in South Melrose Avenue in the City of Vista, just east of the boundary of Carlsbad and Vista. Expansion Segment 5 (ES 5) north and south of State Route 78 (SR-78) along the Carlsbad/Oceanside boundary, and along El Camino Real to Kelly Street. Expansion Segment 7 (ES 7) is located south of SR-78, west of College Avenue, and north east of Carlsbad Village Drive. Expansion Segment 8 (ES 8) is located along El Camino Real between Aviara and La Costa Avenue. Expansion Segment 9 (ES 9) is located north of Batiquitos Lagoon, west of Interstate 5, east of Highway 101, and south of Poinsettia Avenue. Expansion Segment 18 (ES 18) is located southwest of Maerkle Reservoir along Palmer Way and Impala Drive.

Description of Project

Implementation of the 2012 Recycled Water Master Plan (RWMP) is divided into three phases: Existing (Phase I and Phase II), Phase III, and Build-out. The proposed project, Phase III, would expand CMWD's recycled water system to the north area of Carlsbad and begin initial expansion into neighboring water service agencies. The Phase III project components would be completed between 2014 and 2020. The Phase III project would expand the treatment capacity (from 4.0 mgd to 8.0 mgd) within the Carlsbad Water Recycling Facility by installing additional filtration units and chlorine contact basins. The Phase III project would also install 96,600 linear feet of pipelines, relocate or construct a new storage tank, convert existing potable water facilities to recycled water use, and retrofit landscape irrigation water systems to use recycled water in eight expansion segment locations throughout the project area (see Figure 2).

Determination

The City of Carlsbad has conducted an environmental review of the above described project pursuant to the Guidelines for Implementation of the California Environmental Quality Act and the Environmental Protection Ordinance of the City of Carlsbad. As a result of said review, the initial study identified potentially significant effects on the environment, and the City of Carlsbad finds as follows:

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on the attached sheet have been added to the project.

☐ The proposed project MAY have "potentially significant impact(s)" on the environment, but at least one potentially significant impact 1) has been adequately analyzed in an Earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. (Mitigated Negative Declaration applies only to the effects that remained to be addressed).

☐ Although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

A copy of the initial study documenting reasons to support the Mitigated "Negative Declaration is on file in the Planning Department, 1635 Faraday Avenue, Carlsbad, California 92008.

ADOPTED: 2012 pursuant to CMWD Resolution No

ATTEST:

_____

MATT HALL
President, Carlsbad Municipal Water District

Environmental Impact Assessment Form Initial Study

Case Number: EIA 12-02

Project Title: Phase III Recycled Water Project

Lead Agency: City of Carlsbad
1635 Faraday Avenue
Carlsbad, California 92008

Contact Person: Barbara Kennedy (760) 602-4626

Project Location:

The Phase III Recycled Water Project (Phase III project) is located in the City of Carlsbad (City) in the County of San Diego, California, within the Carlsbad Municipal Water District (CMWD) service area (see Figure 1). A small portion of the project (Expansion Segment 4A) is located in the City of Vista and a small portion (Expansion Segment 5) is located in the City of Oceanside. The project will occur within public rights-of-way (ROW) and easements. The locations of individual components are shown in Figure 2. The Carlsbad Water Recycling Facility (CWRF) Expansion would be installed at the existing CWRF, located at 6220 Avenida Encinas, Carlsbad, CA, 92011. Expansion Segment 1A (ES 1A) is located in existing roadways south of Palomar Airport Road, west of El Camino Real, and along Camino Via Roble. Expansion Segment 2 (ES 2) is located south of Agua Hedionda Lagoon, west of Interstate 5, along the Burlington Northern and Santa Fe Railway (BNSF) railroad track and Avenida Encinas. Expansion Segment 4A (ES 4A) is located in South Melrose Avenue in the City of Vista, just east of the boundary of Carlsbad and Vista. Expansion Segment 5 (ES 5) north and south of State Route 78 along the Carlsbad/Oceanside boundary, and along El Camino Real to Kelly Street. Expansion Segment 7 (ES 7) is located south of State Route 78, west of College Avenue, and north east of Carlsbad Village Drive. Expansion Segment 8 (ES 8) is located along El Camino Real between Aviara and La Costa Avenue. Expansion Segment 9 (ES 9) is located north of Batiquitos Lagoon, west of Interstate 5, east of Highway 101, and south of Poinsettia Avenue. Expansion Segment 18 (ES 18) is located southwest of Maerkle Reservoir along Palmer Way and Impala Drive.

Project Applicant/Project Sponsor's Name and Address:

Carlsbad Municipal Water District
1635 Faraday Avenue
Carlsbad, California 92008

General Plan Designation:

Public ROW – Not Applicable
Public Utilities (U)

Zoning:

Public ROW – Not Applicable
Public Utility (P-U)

Brief Description of Project:

Implementation of the 2012 Recycled Water Master Plan (RWMP) is divided into three phases: Existing (Phase I and Phase II), Phase III, and Build-out. The proposed project, Phase III, would expand CMWD's recycled water system to the north area of Carlsbad and begin initial expansion into neighboring water service agencies. The Phase III project components would be completed between 2014 and 2020. The Phase III project would expand the treatment capacity (from 4.0 mgd to 8.0 mgd) within the Carlsbad Water Recycling Facility by installing additional filtration units and chlorine contact basins. The Phase III project would also install 96,600 linear feet of pipelines, relocate or construct a new storage tank, convert existing potable water facilities to recycled water use, and

retrofit landscape irrigation water systems to use recycled water in eight expansion segment locations throughout the project area (see Figure 2).

Existing Land Use and Setting:

See Table 1. The Phase III project would be constructed within the CWRF, within existing and planned roadway ROW, and within the BNSF railroad right of way.

Surrounding Land Uses and Setting:

See Table 1. Existing land uses in the project vicinity include residences, commercial centers, industrial and business parks, and utility infrastructure.

Acronyms:

AB	Assembly Bill
afy	acre feet per year
BMP	Best Management Practice
BNSF	Burlington Northern and Santa Fe Railway
CARB	California Air Resources Board
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbon
CH_4	Methane
CIPs	Capital Improvement Projects
CMP	Congestion Management Program
CMWD	Carlsbad Municipal Water District
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CWRF	Carlsbad Water Recycling Facility
DEH	County of San Diego Department of Environmental Health
DOC	Department of Conservation
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
ES	Expansion Segment
EWPCF	Encina Water Pollution Control Facility
FHWA	Federal Highway Administration
HFCs	Hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HMP	Habitat Management Plan
HPMR	Habitat Preservation and Management Requirements
MBTA	Migratory Bird Treaty Act
MG	million gallon
MHCP	Multiple Habitat Conservation Program
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO_x	Nitrogen oxides
OMWD	Olivenhain Municipal Water District
PFCs	Perfluorocarbons
PM_{10}	Respirable particulate matter
$PM_{2.5}$	Fine particulate matter
RAQS	Regional Air Quality Strategy
ROW	right(s)-of-way
RWMP	Recycled Water Master Plan
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SF_6	Sulfur Hexafluoride
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service
VID	Vista Irrigation District
VOC	Volatile organic compounds
VWD	Vallecitos Water District

Project Description/Environmental Setting

Project Description

CMWD provides potable water and recycled water within a portion of the City located approximately 35 miles north of downtown San Diego. As shown in Figure 1, CMWD's service area covers most of the City's boundary. CMWD is a subsidiary district of the City of Carlsbad. The mayor and City Council are CMWD's governing board. The project study area is the service area of CMWD as well as some of the surrounding areas of three neighboring agencies. These neighboring agencies are the City of Oceanside, Olivenhain Municipal Water District (OMWD), and Vista Irrigation District (VID).

The CMWD has been providing recycled water to the city since 1991. The CMWD 2012 RWMP guides the continued development of the CMWD recycled water system. Currently, CMWD's existing recycled water system extends to all parts of the CMWD service area except the upper portion of the northwest quadrant and the portion of the Vallecitos Water District (VWD) service area within the Carlsbad city limits. The proposed project is the implementation of the Capital Improvement Projects (CIPs) identified in the 2012 RWMP to expand recycled water service to the northwest quadrant of the CMWD service area, and three water service providers including the City of Oceanside, OMWD, and VID. The CIP projects addressed in this document will collectively be referred to as the project.

Implementation of the 2012 RWMP is divided into three phases: Existing (Phase I and Phase II), Phase III, and Build-out. Phases I and II were previously implemented as part of a previous RWMP program. It is anticipated that an additional 3,135 acre feet per year (afy), or 2.8 million gallons per day, of recycled water would be required to serve demand at the completion of Phase III (Year 2020). The anticipated demand from inside the CMWD service area in 1,985 afy, and 1,150 afy would be needed by the neighboring agencies. The project would implement the Phase III facility improvements to meet the additional demand.

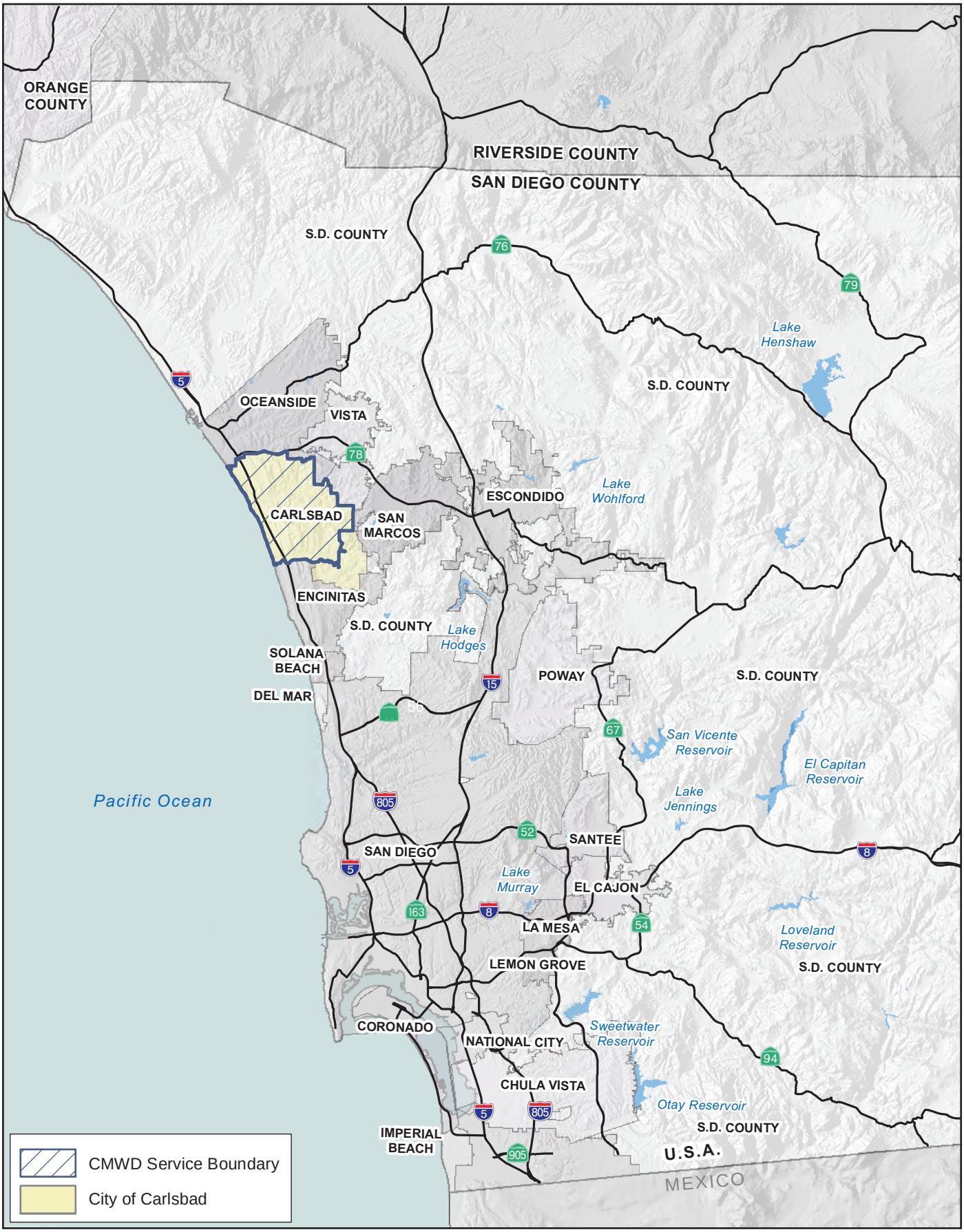
Phase III includes the most feasible alignments for expansion of the recycled water system. This would expand CMWD's recycled water system to the north area of Carlsbad, as well as fill in existing service areas, and begin initial expansion into the neighboring agencies through wholesale service to VID for the Shadowridge Golf Course, OMWD for irrigation use at schools and common areas in the Village Park area of Encinitas, and Oceanside at the El Camino Country Club Golf Course, Ocean Hills Golf Course, and MiraCosta College. The Phase III project would be completed between 2014 and 2020. The locations of individual components are shown in Figure 2. The Phase III project consists of the following facility improvements.

Carlsbad Water Recycling Facility Expansion

The CWRF is owned by CMWD; however, the Encina Wastewater Authority has been contracted to provide operation and maintenance of the CWRF through a memorandum of understanding dated May 1, 2005. CWRF currently operates as a tertiary treatment plant, treating secondary effluent from the Encina Water Pollution Control Facility (EWPCF), located adjacent to the CWRF. To meet future demand, the RWMP recommends the expansion of CWRF, maintaining current supply from the Meadowlark Water Reclamation Facility, and abandoning the existing Gafner Water Reclamation Plant. The Phase III expansion of the CWRF would increase capacity by installing additional filtration units and a chlorine contact basin within the existing facility, as shown on Figure 3. The expansion would increase capacity by an additional 4.0 mgd, for a total capacity of 8.0 mgd, to meet Phase III demand and replace the 0.6 mgd of discontinued capacity from the Gafner Water Reclamation Plant. The CWRF already has approximately 14.4 mgd of pumping capacity and no additional pumps would be installed as part of the project.

Recycled Water Distribution System Expansion

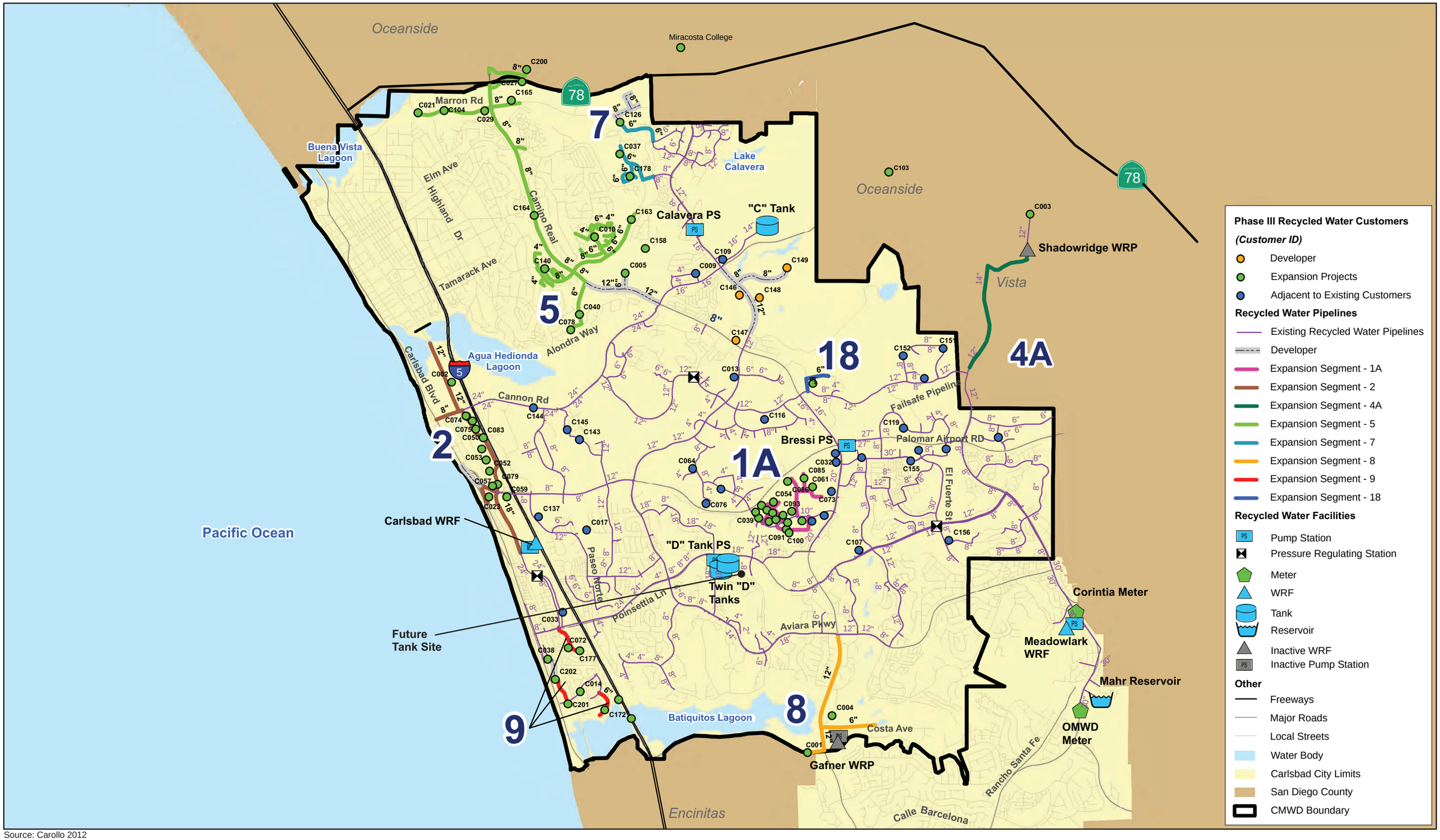
The Phase III project would include the installation of new pipelines, conversion of existing potable water facilities to recycled water use, and retrofitting landscape irrigation water systems to use recycled water and provide supply to proposed land development projects. The recycled water expansion segments that would require new pipeline are described below. A total of be 96,600 linear feet of pipeline is proposed for the Phase III expansion segments.



Source: ESRI, 2010; SanGIS, 2011

ATKINS

REGIONAL LOCATION MAP
FIGURE 1



Source: Carollo 2012

ATKINS

0 2,500 5,000
Feet

N

PHASE III RECYCLED WATER PROJECT FACILITY LOCATIONS
FIGURE 2

This page intentionally left blank.

Source: Carollo 2012

ATKINS

0 100 200

Feet

CARLSBAD WATER RECYCLING FACILITY EXPANSION
FIGURE 3

The future recycled water customers that would be added to the recycled water system as part of Phase III are located adjacent to existing facilities and would require conversion or retrofitting of existing facilities. These customers would not require any new pipeline to connect to the recycled water system.

Expansion Segment 1 consists of a total of 9,400 feet of 4-inch to 8-inch diameter pipeline with a system demand of 99 afy. As shown in Figure 4, ES 1 is located in the center of CMWD's service area in Zone 550 and consists of connecting customers in the business park surrounding Palomar Airport Road. ES 1 would be located within existing roads and CMWD ROW.

Expansion Segment 2 consists of a total of 17,500 feet of 8-inch to 18-inch diameter pipeline with an ultimate system demand of 782 afy. This segment in Zone 384 would extend the recycled water system north from CWRF along Avenida Encinas to the new power plant and across the lagoon, as shown in Figure 5.

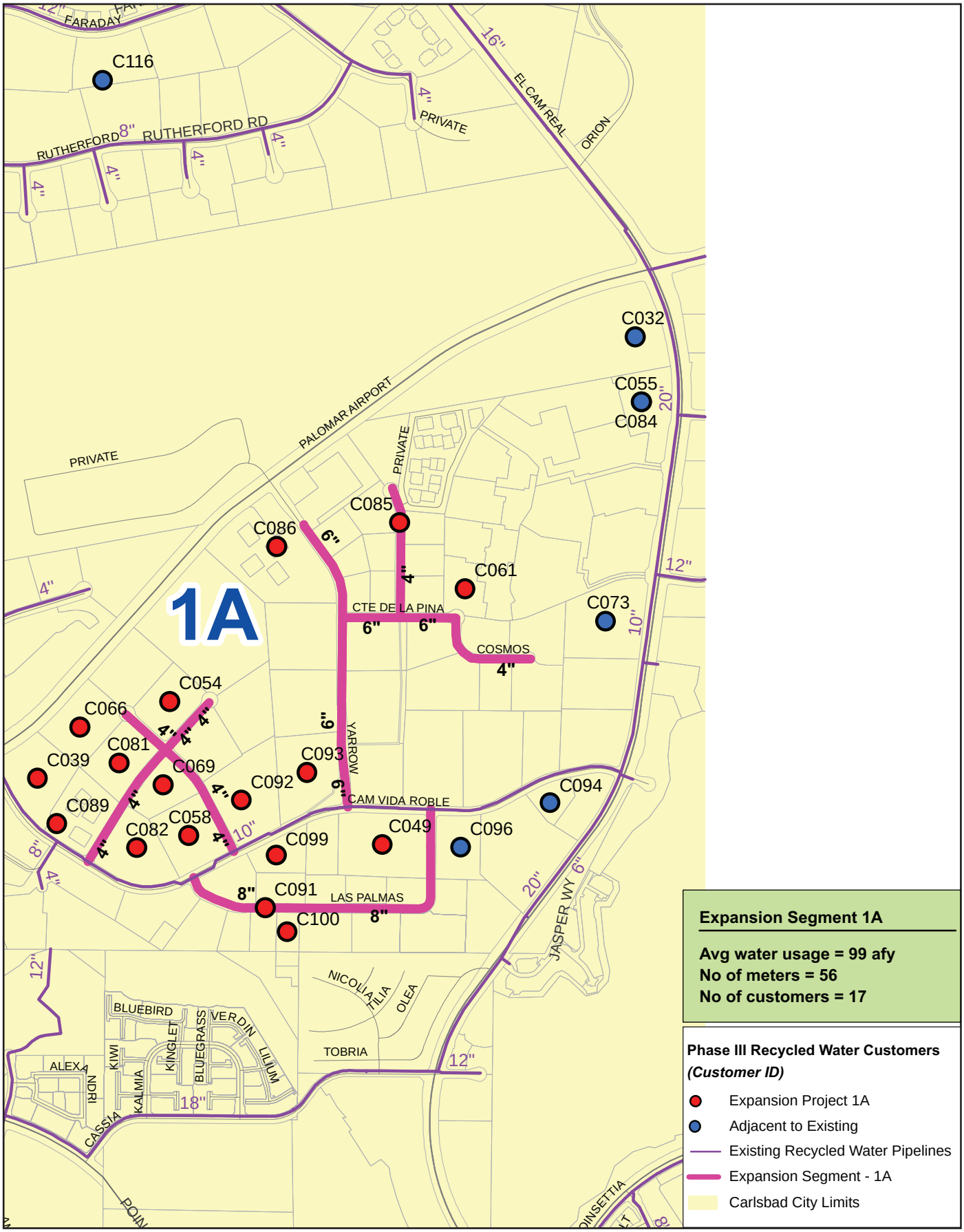
Expansion Segment 4A would evaluate the potential of serving demands within the VID and provide wholesale Service to VID at Shadowridge Water Reclamation Plant and the Ocean Hills Golf Course in Oceanside. No new pipelines would be installed for this project component by CMWD. As shown in Figure 6, Expansion Area 4A would make use of an existing 12-inch diameter pipeline in Melrose Avenue that would connect to an existing pipeline in Faraday Avenue in the 660 Zone. Expansion Area 4A would serve the Shadowridge Golf Course, which has an estimated demand of 300 afy, and the Ocean Hills Golf Course with a demand of 180 afy.

Expansion Segment 5 consists of 46,100 feet of 4-inch to 8-inch diameter pipeline with an ultimate system demand of 454 afy. This segment would be a part of Zone 384, extending the recycled water distribution system north along El Camino Real to serve the second phase of the Robertson Ranch development, several existing homeowners associations, and existing landscape irrigation. This segment also includes the El Camino Country Club within the city of Oceanside with a demand of 180 afy. ES 5 would be located within existing roads in CMWD and City of Oceanside ROW, as shown in Figure 7.

Expansion Segment 7 consists of 7,000 feet of 4-inch to 8-inch diameter pipeline with an ultimate system demand of 114 afy. ES 7 would provide service to the proposed Quarry Creek development, a homeowners association, and existing school landscape in Zone 580 and MiraCosta College in Oceanside. A pressure regulator would potentially be required for this segment. However, if needed, this would be constructed on site as part of the Quarry Creek development and paid for by the developer. Need for the pressure regulator would be determined as part of design for the Quarry Creek development and considered in the environmental analysis for the Quarry Creek project. Therefore, the pressure regulator is not considered part of the proposed Phase III project. As shown in Figure 8, the anticipated alignment for ES 7 is along Tamarack Avenue, Chatham Road, Andover Avenue, Bridgeport Lane, and Carlsbad Village Drive.

Expansion Segment 8 consists of 9,900 feet of 6-inch to 12-inch diameter pipeline to serve La Costa Resort and Spa and OMWD demands with an ultimate system demand of 420 afy. This includes 2,800 feet of pipeline to feed the South La Costa golf course, which would connect Leucadia Wastewater District to the CMWD recycled water system. CMWD could purchase or lease an existing pipeline directly from Leucadia Wastewater District to serve the South La Costa golf course; however, this analysis assumes that a new pipeline will be built. This segment would be a part of Zone 384. As shown in Figure 9, Expansion Segment 8 consists of a pipeline along El Camino Real that would connect CMWD's recycled water system to OMWD and existing landscape irrigation at La Costa Resort and Spa. ES 8 would be located within existing roads and CMWD ROW, with the exception of the pipeline to the South La Costa golf course, which may be placed outside of the existing public ROW.

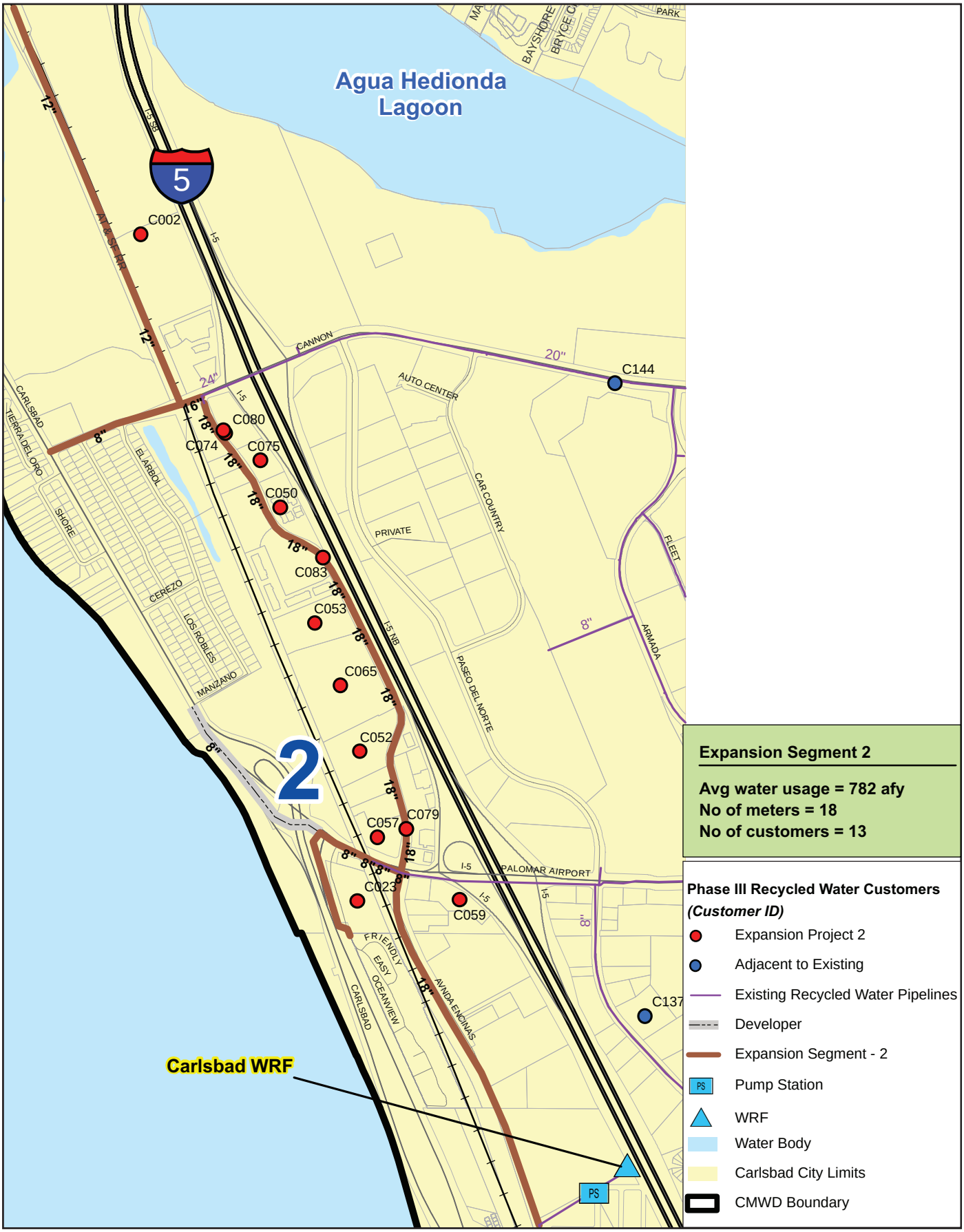
Expansion Segment 9 consists of 4,800 feet of 6-inch to 8-inch diameter pipeline with an ultimate system demand of 91 afy. This segment would be a part of Zone 318, expanding the recycled water system south to the San Pacifico Homeowners Association and various existing landscape irrigation and potential development areas, as shown in Figure 10. A portion of this alignment extends Zone 318 south along Avenida Encinas to the Poinsettia Village shopping center and the Lake Shore Garden mobile home park.



Source: Carollo 2012

ATKINS

EXPANSION SEGMENT 1A
FIGURE 4



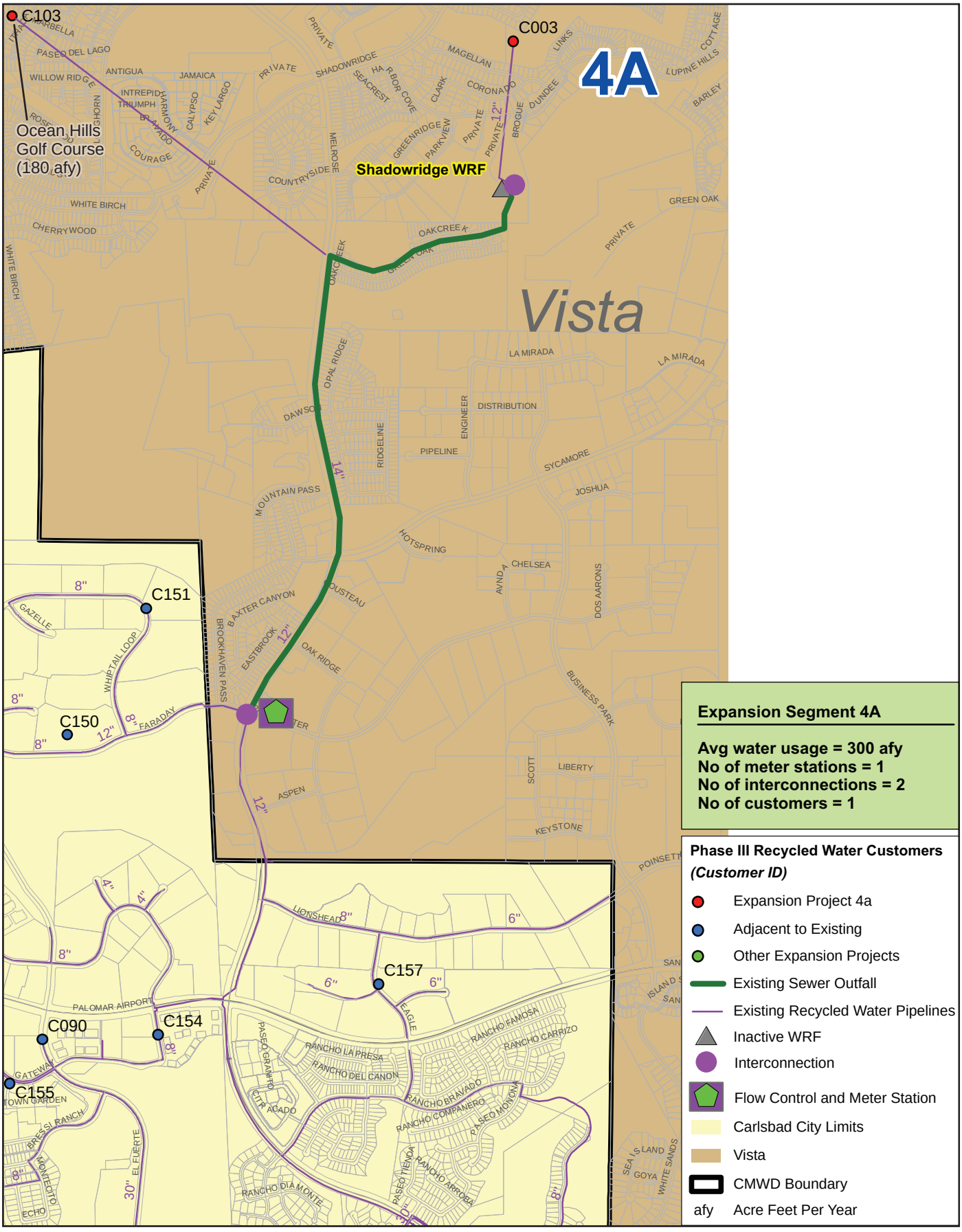
Source: Carollo 2012

ATKINS

0 800 1,600
Feet

N

EXPANSION SEGMENT 2
FIGURE 5



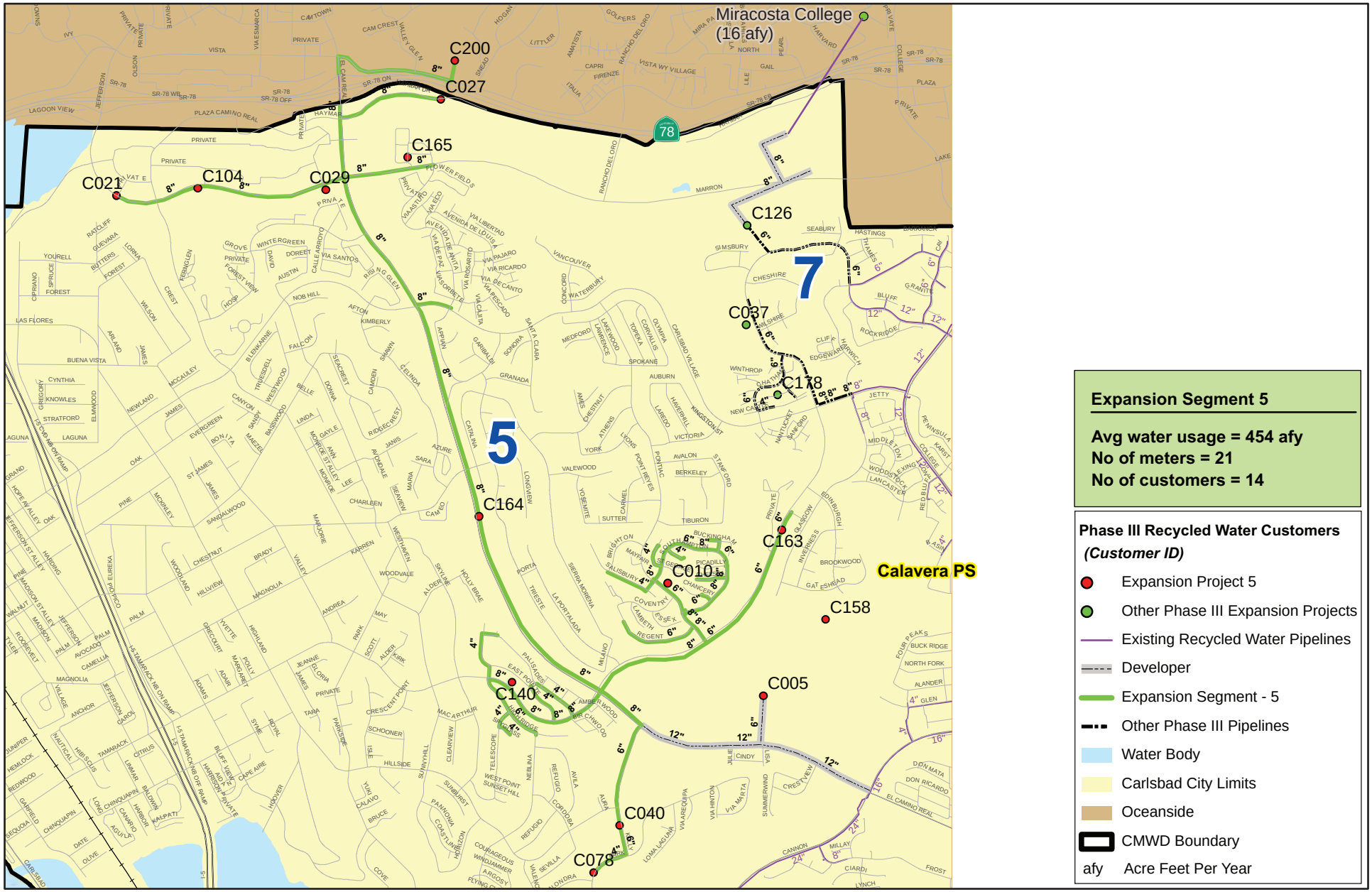
Source: Carollo 2012

ATKINS

0 900 1,800 Feet

N

EXPANSION SEGMENT 4A
FIGURE 6



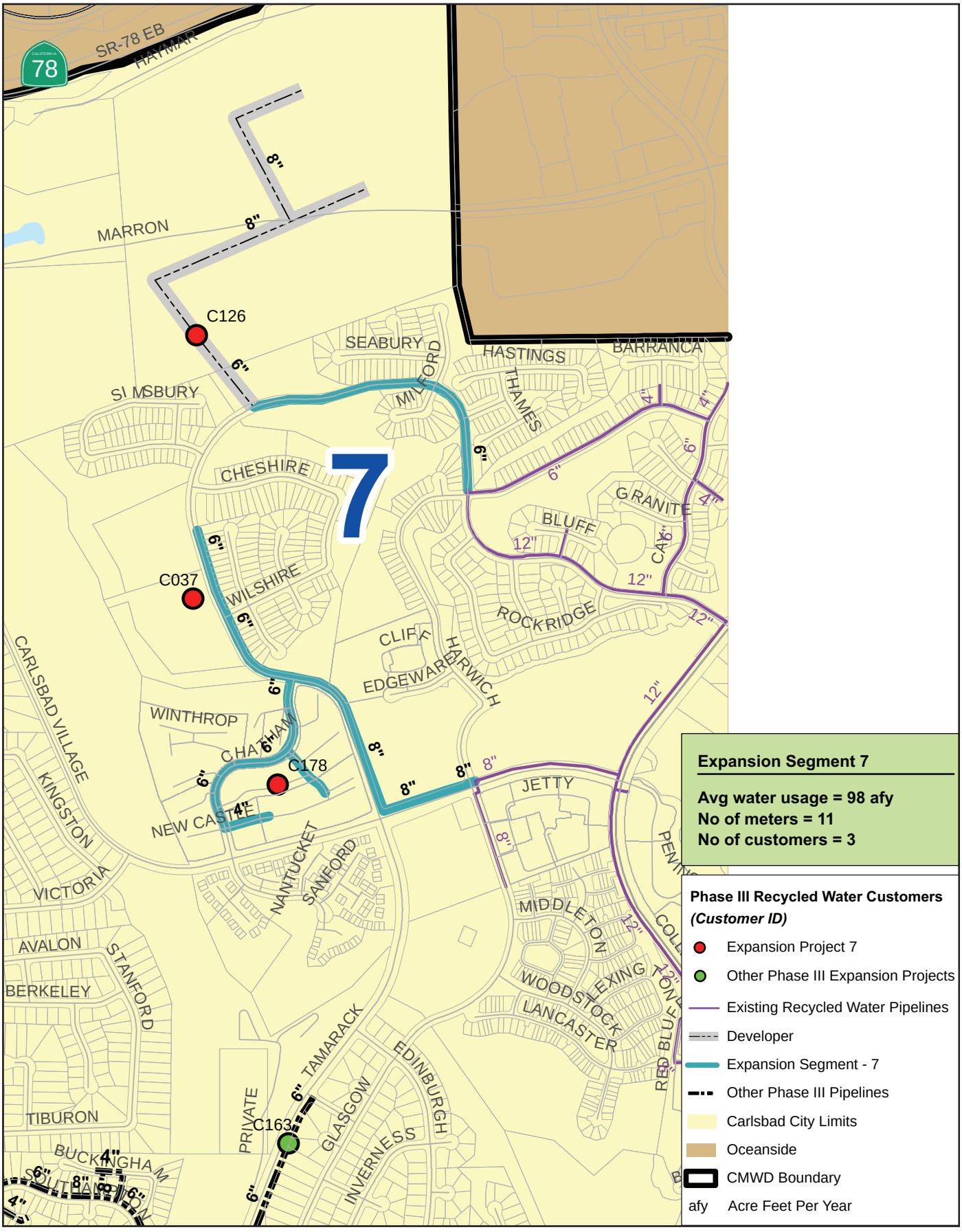
Source: Carollo 2012

ATKINS

0 1,500 3,000
Feet

N

EXPANSION SEGMENT 5
FIGURE 7



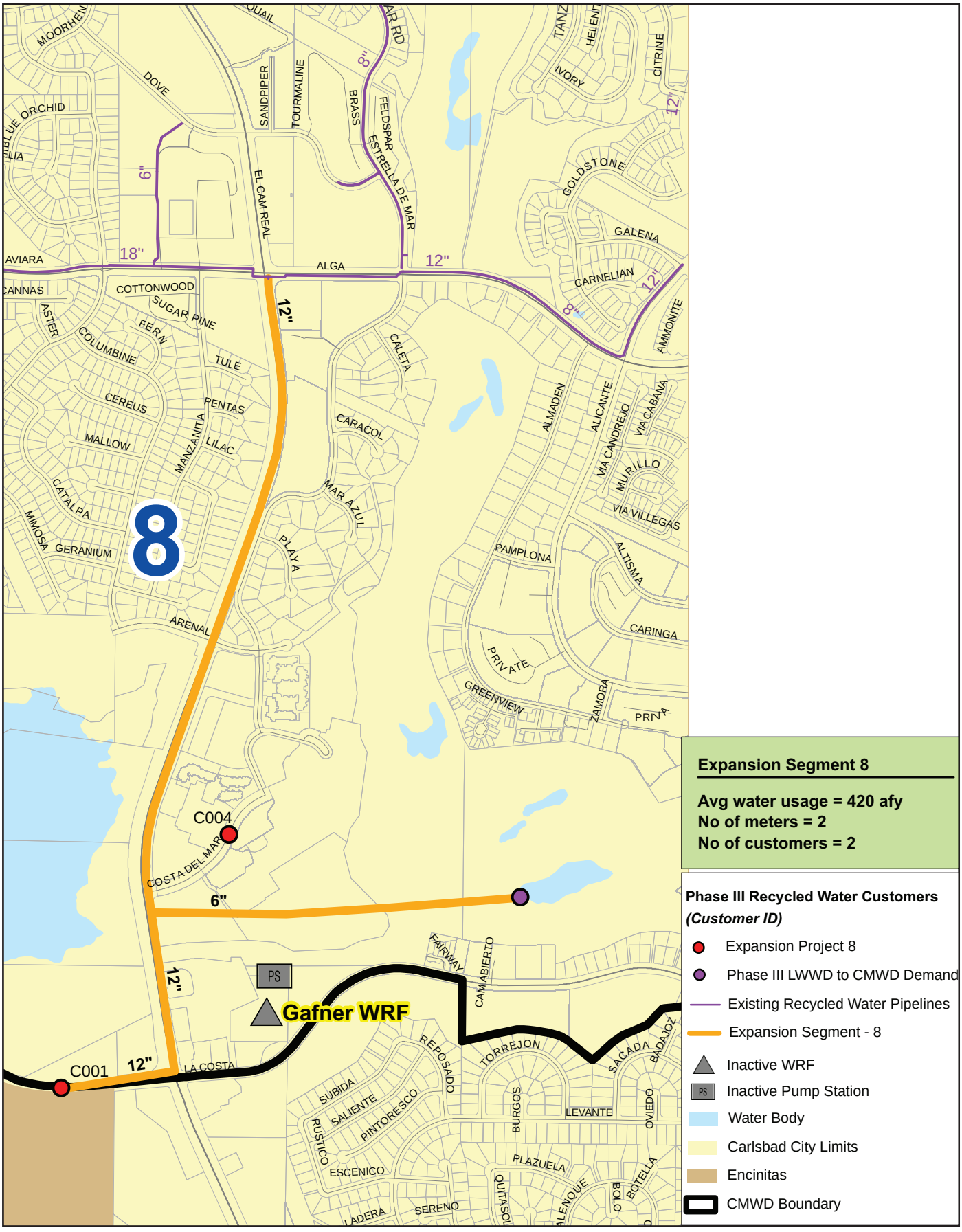
Source: Carollo 2012

ATKINS

0 570 1,140
Feet

N

EXPANSION SEGMENT 7
FIGURE 8



Expansion Segment 8

Avg water usage = 420 afy
No of meters = 2
No of customers = 2

Phase III Recycled Water Customers
(Customer ID)

- Expansion Project 8
- Phase III LWWD to CMWD Demand
- Existing Recycled Water Pipelines
- Expansion Segment - 8
- Inactive WRF
- Inactive Pump Station
- Water Body
- Carlsbad City Limits
- Encinitas
- CMWD Boundary

Source: Carollo 2012

ATKINS

0 750 1,500 Feet N

EXPANSION SEGMENT 8
FIGURE 9

Expansion Segment 9

Avg water usage = 91 afy
No of meters = 6
No of customers = 7

Phase III Recycled Water Customers
(Customer ID)

- Expansion Project 9
- Adjacent to Existing
- Existing Recycled Water Pipelines
- Developer
- Expansion Segment - 9
- Pressure Regulating Station
- Water Body
- Carlsbad City Limits
- Encinitas
- CMWD Boundary

Source: Carollo 2012

ATKINS

0 600 1,200
Feet

N

EXPANSION SEGMENT 9
FIGURE 10

Expansion Segment 18 consists of 1,900 feet of 6-inch to 8-inch diameter pipeline with a Phase III system demand of 25 afy. This segment would be a part of Zone 550, connecting several existing commercial irrigation demands north of Faraday Avenue to the existing recycled water distribution system. ES 18 would be located within existing roads in CMWD ROW, as shown in Figure 11.

Storage

Additional recycled water storage is proposed to be located at the existing "Twin D" tank site. This includes either constructing a new 1.5 million gallon (MG) steel tank adjacent to the existing two tanks or relocating an existing 1.5 MG steel tank to the site. The location of the proposed tank site is shown in Figure 12. Construction would include an at-grade concrete ring wall to support the 1.5 MG tank. The site is already graded with an existing paved access road.

Construction Schedule and Methods

The Phase III project would be completed between 2014 and 2020. Based on the 2012 RWMP, construction of the CWRF expansion, ES 5, ES 7, ES 8, ES 9, and ES 18 would begin as early as 2014. ES 1 and ES 2 would begin construction as early as 2015. ES 4A would also be completed in 2015, but would not require any heavy construction activities. The CWRF expansion and Twin D tank construction or relocation would each take approximately 18 months to complete. Pipelines would be installed at a rate of 80 feet to 100 feet per day; therefore, pipeline project components would take between two months (ES 9) and 29 months (ES 5) to complete.

Equipment associated with the construction of the Phase III project would utilize typical construction equipment including dozers, rollers, dewatering pumps, backhoes, loaders, delivery and haul trucks. Pipeline installation project components would utilize open trenching or trenchless (jack-and-bore) methods. Open trench pipeline construction would require trenches varying in width from 2 feet to 12 feet depending on the diameter of the pipe and its depth. Trenchless recycled water pipeline project components include crossing Palomar Airport Road along Avenida Encinas (ES 2), crossing the BNSF railroad tracks (ES 2), and crossing San Marcos Creek in the South La Costa golf course (ES 8). The installation of pipelines within roadways may, as deemed necessary, require a temporary lane or roadway closure during construction activities. No grading would be required for the proposed CWRF expansion because it would occur on the existing building pads.

Permits Required

The approval of the Phase III project requires the affirmative vote of the CMWD Board of Directors. However, implementation of the individual facilities that comprise the proposed project may require that the CMWD obtain approval, permits, licenses, certifications or other entitlements from various federal, state, and local agencies, as shown in Table 1 in Appendix A.

Environmental Setting and Surrounding Land Uses

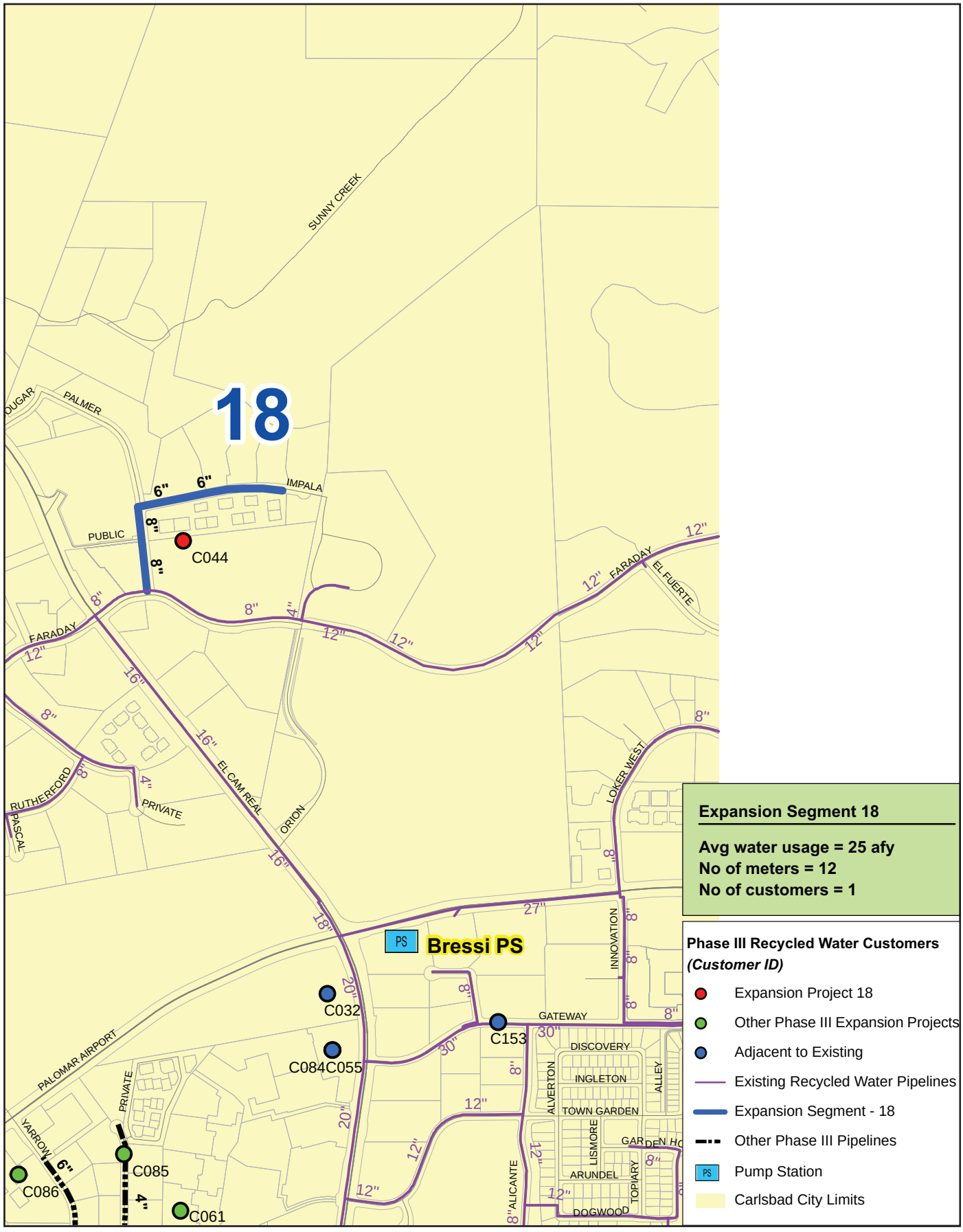
The environmental setting and land uses surrounding each of the project components are provided in Table 1.

Regulatory Compliance

Construction and operation of the Phase III project would be conducted in compliance with all applicable federal, state, and local laws and regulations, including a variety of environmental laws and regulations pertaining to various environmental topics. Applicable regulations are listed in Appendix A.

Project Design and Construction Measures

The CMWD has incorporated numerous project design features and construction measures into the project design that are included in an effort to reduce the potential for environmental effects. The project design features and construction measures are provided in Appendix A.



Source: Carollo 2012

ATKINS

0 750 1,500 Feet

N

EXPANSION SEGMENT 18
FIGURE 11

Source: Carollo 2012

ATKINS

0 75

Feet

N

PROPOSED STORAGE TANK LOCATION
FIGURE 12

Table 1 Environmental Setting and Surrounding Land Uses

Project Component	Environmental Setting and Surrounding Land Uses
Carlsbad Water Recycling Facility Expansion	The expansion would be located within the existing CWRF facility. The proposed chlorine contact basin and granular media filtration equipment would be located within a new concrete structure. The two concrete tanks that contain the treatment system would be surrounded by other CWRF facilities to the south, east, and west, and the EWPCF to the north. Existing vegetation within the CWRF facility site surrounding the structures consists of non-native and/or ornamental species.
Expansion Segment 1	Pipelines would be located within the following existing roadways: Corte del Nogal, Corte de Abeto, Yarrow Drive, Corta de la Pina, Cosmos Court, Corte del Cedro, and Las Palmas Drive. These roadways are within an existing business park including office and light industrial development.
Expansion Segment 2	Pipelines would be located within the BNSF railroad ROW and the following existing roadways: Cannon Road, Avenida Encinas, Palomar Airport Road, and Oceanview Drive. Land uses along the rail corridor include the new power plant. Land uses along Avenida Encinas include power plant infrastructure, hotels, office and industrial parks, open space, the railroad track, and the CWRF. Land uses along Palomar Airport Road include open space and a hotel. Land uses along Oceanview Drive include mobile home residences.
Expansion Segment 4A	The existing pipeline is located within South Melrose Drive in the city of Vista. Land uses along this roadway include open space, industrial parks, commercial land use, single-family residences, and the Shadowridge Country Club and golf course.
Expansion Segment 5	Pipelines would be located within the following existing roadways: Vista Way, Haymar Drive, El Camino Real, Marron Road, Carlsbad Village Drive, Pointe Avenue, Tamarack Avenue, Palisades Drive, High Ridge Drive, Telescope Avenue, Pontiac Drive, Regent Road, Southampton Road, Chancery Court, Chelsea Court, Salisbury Court, Dorchester Place, Carnaby Court, Buckingham Lane, Kelly Drive, and Park Drive. Land uses along Vista Way include hotels and visitor serving commercial uses, El Camino Country Club and golf course, and medical offices. Land uses along Haymar Drive include open space, a driving range, and commercial land uses. Land uses along El Camino Real include commercial and entertainment land uses, multi-family and single-family residences, medical offices, and open space. Land uses along Marron Road include commercial land use, multi-family residences, Westfield Plaza mall, and open space. Land uses along Carlsbad Village Drive include multi-family and single-family residences. Pointe Avenue and Palisades Drive are located in a single family residential neighborhood north of Tamarack Avenue. Land uses along Tamarack Avenue include open space and single-family residences. High Ridge Drive and Telescope Avenue are located in a single-family residential development south of Tamarack Avenue, and Regent Road, Southampton Road, Chancery Court, Chelsea Court, Salisbury Court, Dorchester Place, Carnaby Court, and Buckingham Lane are located in a single-family residential neighborhood east of El Camino Real. Land uses along Kelly Drive include single-family residences, open space, Kelly Elementary School, and Laguna Riviera City Park. Land uses along Park Drive include open space and Laguna Riviera City Park.
Expansion Segment 7	Pipeline would be installed within the following existing roadways within a single-family residential neighborhood: Tamarack Avenue, Chatham Road, Andover Avenue, Bridgeport Lane, and Carlsbad Village Drive.
Expansion Segment 8	Portions of ES 8 would be installed within the following existing roadways: La Costa Avenue and El Camino Real. Land uses along these roadways include open space, commercial development, single-family and multi-family residential development, and the La Costa Resort and golf course. The remaining portion of the expansion segment would traverse La Costa golf course property from El Camino Real to the existing golf course lake.
Expansion Segment 9	Pipeline would be installed in several existing roadways: Avenida Encinas, Ponto Drive, and Navigator Circle. Land uses along Avenida Encinas include the Lake Shore Garden mobile home residential neighborhood and the Poinsettia Village commercial development. Open space is located on either side of Ponto Drive. Navigator Circle is located in a single-family residential neighborhood.
Expansion Segment 18	Pipeline would be installed in the existing Palmer Way and Impala Drive roadway ROW. These roadways are located in an existing business park including office and light industrial uses.
1.5 MG Steel Tank	The new or relocated steel tank would be located on a currently graded site that contains two existing steel tanks for recycled water storage. The tank would be connected to the existing pipeline at the site. Existing vegetation adjacent to the steel tank site consists of non-native and/or ornamental species. The storage tank site is surrounded by single-family residential development.

Environmental Initial Study

Environmental Factors Potentially Affected

The summary of environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," or "Potentially Significant Impact Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

Determination

(To be completed by the Lead Agency)

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a **Negative Declaration** will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an **Environmental Impact Report** is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report **(EIR)** or **Negative Declaration** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **Negative Declaration**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Barbara Kennedy — Planner Signature — 9/13/2012 — Date

Don Ley — City Planner Signature — 9/13/2012 — Date

Evaluation of Environmental Impacts

The California Environmental Quality Act (CEQA) Guidelines, Chapter 3, Article 5, Section 15063 requires that the City conduct an Environmental Impact Assessment (EIA) to determine if a project may have a significant effect on the environment. The Environmental Impact Assessment appears in the following pages in the form of a checklist. This checklist identifies any physical, biological and human factors that might be impacted by the proposed project and provides the City with information to use as the basis for deciding whether to prepare an EIR, Negative Declaration, or to rely on a previously approved EIR or Negative Declaration.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by an information source cited in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved. A "No Impact" answer should be explained when there is no source document to refer to, or it is based on project-specific factors as well as general standards.

"Less Than Significant Impact" applies where there is supporting evidence that the potential impact is not significantly adverse, and the impact does not exceed adopted general standards and policies.

"Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact."

The developer must agree to the mitigation, and the City must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

"Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significantly adverse.

Based on an "EIA-Initial Study", if a proposed project could have a potentially significant adverse effect on the environment, but all potentially significant adverse effects (a) have been analyzed adequately in an earlier EIR or Mitigated Negative Declaration pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or Mitigated Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, and none of the circumstances requiring a supplement to or supplemental EIR are present and all the mitigation measures required by the prior environmental document have been incorporated into this project, then no additional environmental document is required.

When "Potentially Significant Impact" is checked the project is not necessarily required to prepare an EIR if the significant adverse effect has been analyzed adequately in an earlier EIR pursuant to applicable standards and the effect will be mitigated, or a "Statement of Overriding Considerations" has been made pursuant to that earlier EIR.

A Negative Declaration may be prepared if the City perceives no substantial evidence that the project or any of its aspects may cause a significant adverse effect on the environment.

If there is one or more potentially significant adverse effects, the City may avoid preparing an EIR if there is mitigation measures to clearly reduce adverse impacts to less than significant, and those mitigation measures are agreed to by the developer prior to public review. In this case, the appropriate "Potentially Significant Impact Unless Mitigation Incorporated" may be checked and a Mitigated Negative Declaration may be prepared.

An EIR must be prepared if "Potentially Significant Impact" is checked, and including but not limited to the following circumstances: (1) the potentially significant adverse effect has not been discussed or mitigated in an earlier EIR pursuant to applicable standards, and the developer does not agree to mitigation measures that reduce the adverse impact to less than significant; (2) a "Statement of Overriding Considerations" for the significant adverse impact has not been made pursuant to an earlier EIR; (3) proposed mitigation measures do not reduce the adverse impact to less than significant; or (4) through the EIA-Initial Study analysis it is not possible to determine the level of significance for a potentially adverse effect, or determine the effectiveness of a mitigation measure in reducing a potentially significant effect to below a level of significance.

A discussion of potential impacts and the proposed mitigation measures appears after each related set of questions. Particular attention should be given to discussing mitigation for impacts, which would otherwise be determined significant. As discussed above in the Project Description, several potential customers located adjacent to existing recycled water facilities would be connected to the recycled water system. No physical environmental changes would occur as a result of these connections; therefore, they are not included in the analysis below.

This document incorporates by reference the analysis contained in the Draft EIR for the City of Carlsbad Sewer Master Plan and CMWD Water and Recycled Water Master Plans (Master Plans) Update (SCH #2012021006) (2012 Master Plans EIR), which was released for public review in July 2012. The 2012 Master Plans EIR addresses the potential physical environmental impacts that would result from implementation of the proposed Sewer, Water, and Recycled Water Master Plan CIP Projects, including the CWRF expansion and Expansion Segments 1, 2, 4A, 5, 7, 8, 9, and 18. This Initial Study also uses the information included in the previous Initial Study and Environmental Checklist prepared for the Encina Basin Water Reclamation Program Phase II Project in December, 1999, which included construction of the CWRF. Each of these prior certified environmental documents is herein incorporated by reference. This EIA contains information summarized from these prior documents to facilitate the reader's review of this document where appropriate. All referenced documents are available for review at the City of Carlsbad, 1635 Faraday Avenue, Carlsbad, California, 92008.

The proposed ES 4A consists of using an existing pipeline to provide recycled water service to the Shadowridge golf course. No new pipeline would be installed as part of this project component and no other construction activities would be required. The 2012 Master Plans EIR assumed that 700 feet of pipeline would be installed as part of ES 4A, but determined that installation would not result in any potentially significant environmental impacts that would require mitigation. ES 4A as proposed would not result in any physical environmental effects because no construction would be required; therefore, consistent with the determination of the 2012 Master Plans EIR, ES 4A would not result in any physical environmental impacts and is not included in the EIA below. The potential environmental impacts of the CWRF expansion and Expansion Segments 1, 2, 5, 7, 8, 9, and 18 are addressed in the following EIA.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
1.	**Aesthetics**				
	Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Explanation:

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The proposed expansion segments are below-ground installations, and the CWRF expansion consists of interior improvements to an existing facility. Following construction, the project would have no visual impact. The CWRF expansion and construction or relocation of the tank at the Twin D tank site would not result in temporary construction impacts because the construction area would be within the CMWD property, isolated from public view. However, temporary visual impacts would occur from construction of the expansion segments due to unsightly trenching and stockpiling in public roadways, and presence of heavy construction

equipment. Disturbance of ground cover, excavation, material stockpiles, and the presence of construction equipment would temporarily degrade the pre-existing visual character at the construction sites and their surroundings. Short-term impacts associated with construction would be a substantial adverse change in existing visual character. However, the CMWD has committed to the measures listed in Appendix A to minimize potential effects on aesthetics to neighborhoods surrounding the Phase III project during construction activities, including removal of construction debris, limiting disturbance of the existing setting, and restoring disturbed areas following construction. Therefore, visual impacts would be minimized during construction activities and disturbed areas would be re-vegetated or repaved to ensure that all disturbed areas of the construction site return to pre-existing visual character conditions after completion of construction. Temporary construction impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. There are no designated State Scenic highways in the project study area. However, Interstate 5 is an eligible State Scenic highway and Carlsbad has its own scenic roadways program. Scenic roadways listed in the Carlsbad General Plan in the proximity of the project include El Camino Real, Palomar Airport Road, La Costa Avenue, Melrose Drive, College Boulevard, Cannon Road, Carlsbad Village Drive, Faraday Avenue, Interstate 5, and Poinsettia Lane. The BNSF railroad line is also considered a scenic corridor. However, as discussed above under question 1a), the proposed project would not result in any permanent visual impacts. Impacts would be less than significant.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. As discussed above under question 1a), the proposed project would not result in any permanent visual impacts. Impacts related to existing visual character and quality would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed expansion segments are below-ground installations. The CWRF expansion consists of a concrete structure, and the new steel storage tanks would be located on the same site as two existing steel tanks. Similar to the existing tanks, the new tank would be painted with low-glare coatings so that reflection is kept to a minimum. No new lighting or potential sources of glare are proposed. Construction would be limited to daytime hours and would not require construction lighting. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact

2. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
	Monitoring Program of the California Resources Agency, to non-agricultural use?				
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g) or timberland (as defined in Public Resources Code section 4526)?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Explanation:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. There are only a limited number of areas within Carlsbad that include important farmlands as defined by the California Department of Conservation. Carlsbad consists mainly of Urban and Built-Up Land along the western, southern, and northwestern portions of the city, with large areas of "Other Land" interspersed throughout the eastern and central portions (Dudek 2003). "Other Land" consists of land not included in any other mapping category. Common examples include low density rural developments and brush or sensitive habitat areas not suitable for agriculture. One small Williamson Act contract area is located within Carlsbad, east of Interstate 5 at Palomar Airport Road (DOC 2009) and it not located in the vicinity of any project component. No agricultural uses occur within the areas of the VID or Oceanside Water District adjacent to the proposed recycled water infrastructure alignments in these jurisdictions (City of Vista 2011 and DOC 2008). The CWRF expansion and new storage tank consist of improvements to existing facilities and would not result in any conversion of agricultural land to non-agricultural use. The proposed pipelines would be located within existing roadways and would not affect any existing agricultural operations or preclude future agricultural use. Therefore, no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. See response to question 2a). No impact to agricultural land would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g) or timberland (as defined in Public Resources Code section 4526)?

No Impact. The CMWD recycled water service area does not include any forest land or timberland zoned for timberland production (CDF 2003). No forest land or timberland zoned for timberland production occurs within the areas of the VID or Oceanside Water District where recycled water infrastructure alignments would be extended. No impact to forest land or timberland would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. See response to question 2c). No impact to forest land would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. See response to questions 2a) and 2c). No impact to agricultural land or forest land would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
3. Air Quality				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Explanation:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant. The project area is located in the San Diego Air Basin (SDAB). The San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations for the SDAB. The most current air quality planning document for the SDAPCD and thus the applicable air quality plan to the Phase III project is the 2009 Regional Air Quality Strategy (RAQS) (SDAPCD 2009). This plan was prepared by the SDAPCD for the California Air Resources Board (CARB) as part of the State Implementation Plan (SIP), to demonstrate how the SDAB would either maintain or strive to attain the National Ambient Air Quality Standards (NAAQS). The California SIP would also be applicable to the proposed project. California SIP documents are prepared by CARB to demonstrate how the entire state of California will maintain or attain the NAAQS.

The 2009 RAQS and SIP were developed based on growth assumptions, land use, and other information from the San Diego Association of Governments (SANDAG), which obtains information from the local jurisdictions general plans and growth assumptions. Growth assumptions made within the 2012 RWMP to establish appropriate future service requirements were derived from the City's Growth Database, SANDAG data, and studies from neighboring water districts. The CIP projects included in the 2012 RWMP were proposed to meet the projected buildout demand and would be implemented concurrently with development, or as repairs are needed. The size and capacities of the recycled water CIP projects are based on the projected growth that would occur in the areas served by the CMWD. The Phase III project would implement CIP projects identified in the 2012 RWMP to meet future demand. These projects would not generate any additional population and no unplanned growth would be served by the projects. The proposed facilities are community service facilities, providing the infrastructure necessary to support planned population growth. Therefore, the proposed project would not result in population growth that would exceed the population projections accounted for in the RAQS and SIP. Implementation of the Phase III project would not conflict with or obstruct implementation of an applicable air quality plan and the impact would be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant. The SDAPCD does not provide quantitative thresholds for determining the significance of construction or mobile source-related projects; however, the SDAPCD does specify Air Quality Impact Analysis screening level thresholds for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3). These screening level thresholds can be used to demonstrate whether a project's total emissions would result in a significant impact to regional air quality.

Construction of the project would result in temporary increases in air pollutant emissions generated primarily from construction equipment exhaust, earth disturbance, construction worker vehicle trips, and heavy duty truck trips. The 2012 Master Plans EIR quantified the worst-case construction emissions that would result from simultaneous implementation of the three master plans. The worst-case construction scenario included installation of 124,414 feet of pipeline (including approximately 63,480 linear feet for ES 5, ES 7, ES 8, ES 9, and ES 18), pump and lift station removals and replacements, removal and relocation of a storage tank at the Twin D site, access road installations, and the CWRF expansion project.

The worst-case analysis assumed that all projects would be constructed simultaneously and completed in seven months. It was assumed that 890 linear feet of pipeline would be installed per day for all three Master Plan CIP Programs. The 2012 Master Plans EIR included the worst-case construction scenario for the Phase III project that ES 5, ES 7, ES 8, ES 9, ES 18, placement of a new tank at the Twin D site, and the CWRF expansion would all be under construction in 2014. Construction of the Phase III RWMP pipeline projects were assumed to be installed at a rate of 80 feet to 100 feet per day. In reality, the project components would not all be constructed in 2014. The Phase III project would be installed at a slower pace and over a longer period of time compared to the 2012 Master Plans EIR assumptions, and would therefore result in reduced maximum daily emissions compared to the EIR assumptions.

The maximum daily emissions associated with the worst-case construction scenario are provided in Table 2. As shown in Table 2, implementation of the Sewer, Water, and Recycled Master Plans simultaneously, including the worst-case construction scenario for the Phase III project, would result in less than significant emissions of criteria air pollutants during construction of the proposed CIP projects. The Phase III project would also implement the Best Management Practices (BMPs) listed in Appendix A to minimize fugitive dust emissions and other criteria pollutant emissions during construction of Phase III project, including covering or applying soil stabilizer to unpaved surfaced, restoring disturbed areas when construction is complete, using alternative sources of power when feasible, installing air filters on construction engines, implementing a traffic control plan, locating staging areas away from residences, and limiting truck idling. Therefore, the project would result in less than significant air pollutant emissions during construction.

Table 2 Worst-Case Daily Emissions Associated with Construction

	Maximum Daily Emissions, pounds per day					
Emission Source	**VOC**	**NO_x**	**CO**	**SO_x**	**PM_{10} (3)**	**$PM_{2.5}$ (3)**
Total Worst-Case Construction Scenario Emissions	17	94	63	0	66	18
Significance Threshold	**75**	**250**	**550**	**250**	**100**	**55**
Significant Impact?	No	No	No	No	No	No

(1) Includes hauling of imported and exported trench material

(2) Architectural coasting emissions assume that all architectural coatings would be low-VOC coatings. Based on estimated interior and exterior surface area for each new reservoir, pump station, and lift station. Worker vehicle trips were estimated by URBEMIS 2007.

(3) Estimates of particulate emissions take into account application of soil stabilizers to inactive areas during grading in mandatory compliance with SDAPCD Rule 55.

VOC = Volatile organic compounds; NO_x = Nitrogen oxides; CO = carbon monoxide; SO_x = Sulfur Oxides; PM_{10} = Respirable particulate matter; $PM_{2.5}$ = Fine particulate matter

Source: URBEMIS 2007.

Following construction, the new pipelines would be passive and the CWRF expansion would not require any equipment that would generate the criteria air pollutants, listed in Table 2. The underground pipelines would not require regular maintenance. No additional maintenance trips would be required to the CWRF as a result of the proposed expansion. Therefore, the project would not generate a substantial net increase in vehicle trips and not result in a significant increase in criteria pollutant emissions from vehicle trips. Operation air pollutant emission impacts associated with the project would be less than significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less than significant. An analysis of cumulative air quality impacts takes into consideration how a project, in conjunction with cumulative projects, may impact the ambient air quality and expose sensitive receptors to criteria air pollutants. San Diego County is designated as a basic non-attainment area for the federal ozone standard, and is also a non-attainment area for the state standards for ozone, PM_{10}, and $PM_{2.5}$. The County has not met the federal and/or state standards for these pollutants; therefore, significant cumulative impacts to air quality for VOCs (ozone precursor), NO_x (ozone precursor), PM_{10}, and $PM_{2.5}$ currently exist. The greatest concern involving criteria air pollutants is whether a project would result in a cumulatively considerable net increase of PM_{10} and $PM_{2.5}$, or exceed screening level thresholds of ozone precursors (VOCs and NO_X). As discussed in Section 3 b), the project would not generate operational air pollutant emissions; therefore, only the potential cumulative impacts associated with construction-related air pollutant emissions are evaluated below.

The County of San Diego's Guidelines for Determining Significance provide guidance for assessing the impact of cumulative emissions of criteria pollutants. According to these guidelines, a project would result in a cumulative impact if the proposed project, alone or in combination with the construction of another cumulative project, would exceed the significance thresholds listed in Table 2 during construction.

A localized pollutant concentration analysis is appropriate to the determination of the cumulative impacts of construction emissions because pollutant emissions would disperse or settle out following construction and would not contribute to long-term concentrations of emissions in the San Diego Basin. The geographic scope of the cumulative analysis for the proposed project is area served by the CMWD, including the CMWD service area and portions of the VID and Oceanside services areas where recycled water service would be extended. As shown in Table 2, the worst-case simultaneous construction of the CIP projects proposed in the 2012 Sewer, Water, and Recycled Water Master Plans, including the worst-case construction of the Phase III project, would not exceed the significance thresholds. The 2012 Master Plans EIR concluded that construction would not result in significant cumulative impact because cumulative construction projects would not take place at the same time or in the same location, and relatively short construction periods are anticipated for CIP projects. The proposed project construction would be consistent with the construction assumptions in the 2012 Master Plans EIR. Therefore, consistent with the conclusion of the 2012 Master Plans EIR, construction of the Phase III project would not result in a cumulatively considerable contribution to a cumulative impact during construction.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant. None of the departments within the CMWD are listed within the *2010 Air Toxics "Hot Spots" Program Report for San Diego County* as an organization posing possible health risks to San Diego County with regards to TACs. The proposed Phase III facilities are similar to existing pipelines, storage tanks, and CWRF facilities and would not result in a new source of TACs. As discussed under question 3b), the proposed Phase III project would not result in a substantial net increase in vehicle trips, and would not contribute to severe traffic congestion issues with the potential to create carbon monoxide "hotspots" (defined as areas where high concentrations of carbon monoxide result from idling vehicles). Additionally, construction of the Phase III project would not result in substantial pollutant concentrations, including diesel exhaust from construction equipment. Therefore, while sensitive receptors (e.g., medical facilities and residences) exist along some Phase III pipelines, construction activity would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

Less than significant. CARB's Air Quality and Land Use Handbook includes a list of the most common sources of odor complaints received by local air districts. Typical sources of odor complaints include facilities such as sewage treatment plants, landfills, solid waste recycling facilities, petroleum refineries, and livestock operations. Construction activities are not a typical source of nuisance odors, although construction could result in minor amounts of odorous compounds associated with diesel heavy equipment exhaust or evaporation of volatile compounds within paint or other coatings. Additionally, construction equipment associated with the Phase III project would be operating at various locations throughout the project area and would not take place all at once. Odorous hydrocarbons emissions would dissipate beyond the emission sources and would only temporarily affect receptors in the immediate vicinity of the construction site. Construction-related operations would also be temporary in nature and would cease at the completion of the installations. Therefore, odor impacts associated with construction would be less than significant.

Based on CARB's list of common sources of odor complaints, recycled water projects do not typically result in a source of nuisance odors associated with operation. The pipelines would be located underground and would transport potable water. The storage tank would enclose potable water. The CWRF would continue to filter and disinfects secondary treated wastewater, rather than raw sewage, and the proposed expansion would not result in substantial odor impacts compared to existing conditions. Chemicals proposed for use in the treatment process would be in enclosed containers and would not be vented to the atmosphere. Therefore, operation of the project would not result in a significant odor impact.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
4. Biological Resources				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Explanation:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than significant with mitigation. Information regarding biological resources that occur or have the potential to occur within the project sites and immediate vicinity was obtained from a search of biological resources databases and a review of pertinent literature, prior environmental documents, photographs, and aerial imagery. Due to the fact that the project sites are restricted to existing disturbed and developed land, no site-specific biological surveys were required to be conducted in support of the biological resources analysis. A summarized list of the primary resources consulted for the preparation of the analysis is provided below under the Biological Resource Database and Literature Review heading. The biological resources analysis included a thorough review of literature and geospatial data pertaining to biological resources, including the California Natural Diversity Database, California Native Plant Society Inventory, 2012 Master Plans EIR, and Carlsbad Habitat Management Plan (HMP) mapping data, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Wetlands Mapper, photographs, and aerial imagery.

The Phase III project components have been specifically designed to be restricted entirely within existing disturbed and developed road and utility ROW, access roads, and previously graded areas that are surrounded by existing transportation, residential, and other mixed-use developments. These areas do not support high quality biological resources and are subject to a number of anthropogenic-related disturbances that degrade the surrounding habitat and limit use by most plant and wildlife species. As such, no direct impacts would be expected to occur to any sensitive biological resources, including special-status species.

However, limited portions of several project components occur immediately adjacent to undeveloped areas that could support sensitive biological resources. Therefore, construction of these components could result in indirect impacts to special-status species, as addressed further below.

Special-Status Plant Species. In total, 54 special-status plant species have been reported at locations in the vicinity of the Phase III project sites (Appendix B). None of the 54 special-status plant species have been reported as occupying habitat specifically located within the project sites themselves. All of the project sites lack suitable habitat for special-status plant species and are characterized by paved asphalt within existing road ROW or disturbed bare earth associated with access roads or previously graded areas. The limited vegetation that exists is comprised primarily of non-native ruderal (weedy) and ornamental landscape plant species. No special-status plant species would be expected to occur within the any of the project sites given the high level of disturbance and overall unsuitability of the existing soils, vegetation associations, and hydrology. Therefore, no impacts are anticipated to occur to any special-status plant species as a result of the project.

Special-Status Wildlife Species. In total, 63 special-status wildlife species have been reported at locations in the vicinity of the project sites (Appendix B). None of the 63 special-status wildlife species have been reported as occupying habitat specifically located within the project sites themselves. Similar to that found for special-status plant species, the project sites lack suitable habitat for special-status wildlife species given the prevalence of paved asphalt in existing ROW, disturbed bare earth in access roads, and previously graded conditions. There are a number of disturbance factors associated with the sites that would preclude most special-status wildlife species from using the area as temporary or permanent habitat. These factors include the presence of existing developments; exposure to regular disturbances, including lighting, noise, vehicle, and pedestrian activity; regional

isolation and lack of direct connectivity or reasonable proximity to larger, better quality habitat; and, overall poor quality or lack of resources with respect to providing nesting, foraging, dispersal, refuge or other habitat elements important to species life history requirements.

Most of the areas surrounding the Phase III sites are regularly used by vehicles and pedestrians, which present ongoing adverse direct and indirect effects associated with regular roadway use, encroachment into undeveloped areas, nighttime lighting, and high noise levels. These ongoing effects degrade the existing habitat and deter special-status wildlife species from using the area. In addition, most of the sites are constrained in all directions by existing developments, thereby reducing the likelihood for special-status wildlife species to disperse or migrate over the sites and immediate vicinity. The relatively small amount of undeveloped land that remains in proximity to some of the sites has been reduced to small, fragmented, and low-quality stands, which are disconnected and isolated from habitat in the local and regional area. Most of these off-site stands do not offer the space and resources required by most of the special-status wildlife species.

Given these factors, special-status wildlife species would not be expected to occur on or in the immediate vicinity of most of the project sites. However, several of the project components contain small segments that occur immediately adjacent to undeveloped areas characterized by native habitat that could support special-status wildlife species. These components include ES 1, ES 2, ES 5, ES 8 and ES 9. Although no direct impacts to special-status wildlife species would be expected, potential indirect impacts could occur to special-status wildlife species during project construction. The Phase III project components with segments that occur adjacent to undeveloped areas are depicted within Figure 13 and listed below within Table 3, along with a discussion of the potential indirect impact.

Table 3 Phase III Recycled Water Project Components with Potential to Result in Significant Indirect Impacts (Only) to Special Status Species

Project Component	Rationale for Determination
Expansion Segment 1	Expansion Segment 1 would require construction of recycled water pipeline within developed areas. Portions of this project component within West Oaks Way and Palomar Oaks Way will occur immediately adjacent to undeveloped areas that could support special-status wildlife species, sensitive natural communities, and wetlands. All construction activities would be restricted to existing developed roads, and no trees, shrubs, or habitat would be directly disturbed. Potential indirect noise-related impacts could occur to special-status bird species if project construction would coincide with the breeding season.
Expansion Segment 2	Expansion Segment 2 would require construction of recycled water pipeline within disturbed and developed areas. Portions of this project component near Agua Hedionda Lagoon and the Encinas Power Station, and near Avenida Encinas and the CWRF facility will occur adjacent to undeveloped areas that could support special-status wildlife species, sensitive natural communities, and wetlands. All construction activities would be restricted to existing disturbed and developed areas, and no trees, shrubs, or habitat would be directly disturbed. Potential indirect noise-related impacts could occur to special-status bird species if project construction would coincide with the breeding season.
Expansion Segment 5	Expansion Segment 5 would require construction of recycled water pipeline within developed areas. Portions of this project component that would be installed along Haymar Drive, Tamarack Avenue, Carlsbad Village Drive, Pontiac Drive, Park Drive, and Palmer Way are adjacent to undeveloped areas that could support special-status wildlife species, sensitive natural communities, and wetlands, as shown in Figure 13. All construction activities would be restricted to existing developed roads, and no trees, shrubs, or habitat would be directly disturbed. Potential indirect noise-related impacts could occur to special-status bird species if project construction coincides with the breeding season.
Expansion Segment 8	Expansion Segment 8 would require construction of a recycled water pipeline within developed areas. Portions of this project component near El Camino Real and the La Costa Resort and Spa are adjacent to undeveloped areas that could support special-status wildlife species, sensitive natural communities, and wetlands. All construction activities would be restricted to existing developed roads, and no trees, shrubs, or habitat would be directly disturbed. Potential indirect noise-related impacts could occur to special-status bird species if project construction coincides with the breeding season.

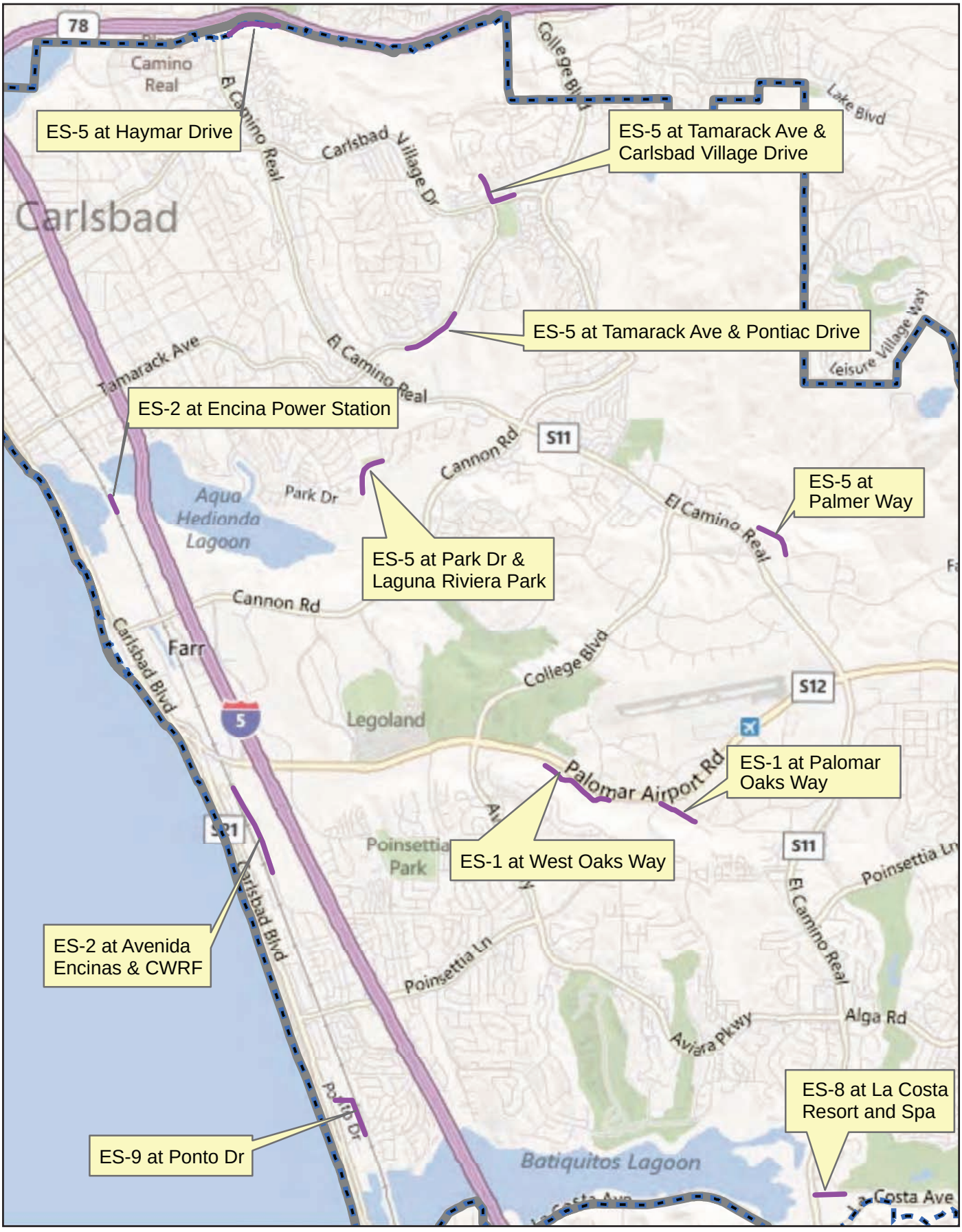
Table 3 Phase III Recycled Water Project Components with Potential to Result in Significant Indirect Impacts (Only) to Special Status Species

Project Component	Rationale for Determination
Expansion Segment 9	Expansion Segment 9 would require construction of a recycled water pipeline within disturbed areas. Portions of this project component near Ponto Drive are adjacent to undeveloped areas that could support special-status wildlife species and sensitive natural communities. All construction activities would be restricted to existing disturbed land, and no trees, shrubs, or habitat would be directly disturbed. Potential indirect noise-related impacts could occur to special-status bird species if project construction coincides with the breeding season.

Potential indirect impacts to special-status species and their habitat from construction of the project components listed within Table 3 could include those resulting from temporary increases in noise and vibration, as discussed further below. Night lighting is also a typical indirect impact of construction; however, the CMWD has committed to daytime construction hours and construction of the project would not require the use of nighttime lighting. Therefore, no indirect impacts resulting from nighttime lighting would occur. In addition, as described in Section 9, potential runoff and increase in pollutants associated with construction activities adjacent to undeveloped areas would be controlled and reduced through implementation of the project features listed in Appendix A, including a Storm Water General Permit, General Linear Utility Permit, and compliance with local development standards, including the preparation of a storm water pollution prevention plan (SWPPP) and application of appropriate BMPs. Therefore, potential indirect impacts associated with runoff and pollutants into off-site undeveloped areas would be reduced to less than significant levels.

Project components ES 1, ES 2, ES 5, ES 8 and ES 9 would be constructed in the immediate vicinity of undeveloped areas characterized by trees, shrubs, and man-made structures (e.g., buildings, bridges, etc.) that provide suitable nesting habitat for several common and sensitive bird species, including raptors, protected under the Migratory Bird Treaty Act (MBTA) and California Department of Fish and Game (CDFG) Code. Construction of the project may require the removal or trimming of common (non-sensitive) trees and shrubs within ornamental landscaped areas during the general bird nesting season (February 1 through August 31) and/or raptor nesting season (January 15 through July 31), which could potentially result in impacts to nesting birds and raptors in violation of the MBTA and CDFG Code. Indirect impacts could occur as a result of construction noise and vibration in the immediate vicinity of undeveloped areas supporting an active bird nest, such that the disturbance results in nest abandonment or nest failure. This represents a potentially significant impact; however, implementation of Mitigation Measure Bio-1A below would mitigate this impact to a less than significant level.

Construction activities adjacent to undeveloped areas could result in inadvertent intrusions of construction equipment and personnel into sensitive habitats adjacent to construction zones that may support special status-species. These activities could result in a potentially significant impact; however, implementation of Mitigation Measures Bio-1B through Bio-1F below would mitigate this impact to a less than significant level.



Source: ESRI, 2010; SanGIS, 2011

ATKINS

0 1 2

Miles

N

PHASE III INDIRECT BIOLOGY IMPACTS
FIGURE 13

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than significant with mitigation. In total, 17 sensitive natural communities have been reported at locations in the vicinity of the Phase III project sites (Appendix B). None of the 17 communities are located within the footprints of the individual project components. As discussed in Section 4 a), all of the project sites are characterized by paved asphalt within existing road ROW or disturbed bare earth associated with access roads or previously graded areas. The limited vegetation that exists is comprised primarily of non-native ruderal (weedy) and ornamental landscape plant species. Therefore, sensitive natural communities are considered to be absent from the project sites and no direct impacts would occur.

As discussed in Section 4 a), the project components listed within Table 3 would be constructed in the immediate vicinity of undeveloped areas. These undeveloped areas could support sensitive natural communities. Construction activities associated with project components ES 1, ES 2, ES 5, ES 8, and ES 9 could result in potential runoff and inadvertent intrusions of construction equipment and personnel into sensitive natural communities adjacent to construction zones. These potential indirect impacts could result in degradation or loss of off-site habitat and would be considered significant. As discussed in Section 9, potential indirect impacts pertaining to runoff and pollutants generated from construction activities adjacent to undeveloped areas would be controlled and reduced to less than significant levels through compliance with the proposed project features and compliance with applicable regulations listed in Appendix A. Further, implementation of Mitigation Measures Bio-1B through Bio-1F would prevent inadvertent intrusions of construction equipment and personnel into off-site sensitive habitats and mitigate this impact to a less than significant level. Therefore, potential impacts to riparian habitat or other sensitive natural community would be reduced to less than significant levels through compliance with applicable water quality standards discussed in Section 9 and implementation of Mitigation Measures Bio-1B through Bio-1F.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than significant with mitigation. All of the Phase III project sites are characterized by paved asphalt within existing road ROW or disturbed bare earth associated with access roads or previously graded areas. No portions of the project sites occur within federally protected wetlands or other sensitive water and wetland resources subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board (RWQCB), or CDFG. Therefore, federally protected wetlands and other jurisdictional water and wetland resources are considered to be absent from the project sites and no direct impacts would occur.

As discussed in Section 4 a), the project components listed within Table 3 would be constructed in the immediate vicinity of undeveloped areas. Of these project components, portions of ES 1, ES 2, ES 5, and ES 8 are located within upland areas that occur in the immediate vicinity of undeveloped areas potentially supporting wetlands. Construction activities associated with these project components could result in potential runoff and inadvertent intrusions of construction equipment and personnel into sensitive wetland areas adjacent to upland construction zones. These potential indirect impacts could result in degradation or fill-related impacts and would be considered significant. Potential indirect impacts pertaining to runoff and pollutants generated from construction activities would be controlled and reduced to less than significant levels through implementation of the project features and compliance with the regulations listed in Appendix A. Inadvertent intrusions of construction equipment and personnel into off-site wetlands would be prevented through the implementation of Mitigation Measures Bio-1B through Bio-1F and would mitigate potential indirect impacts to less than significant levels. Therefore, potential indirect impacts to federally protected wetlands and other jurisdictional resources would be reduced to less than significant levels through compliance with applicable water quality standards discussed in Section 9 and implementation of Mitigation Measures Bio-1B through Bio-1F.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

Less than significant. As discussed above within Section 4 a), the biological resources analysis included a thorough review of information pertaining to the Carlsbad HMP and Multiple Habitat Conservation Program (MHCP), including regional corridors and habitat linkages. No known wildlife corridors, linkages, or nursery sites occur within or in the immediate vicinity of the Phase III project sites. All of the sites are characterized by paved asphalt within existing road ROW or disturbed bare earth associated with access roads or previously graded areas. The sites do not contain any resources that would contribute to the assembly and function of any local or regional wildlife corridors or linkages. No suitable habitat exists that would support a nursery site. Construction and operation of the project would not be expected to adversely affect the wildlife movement functions and values of existing habitat in the immediate vicinity of project sites. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Impacts would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant. None of the proposed project components that occur within the boundaries of the coastal zone would impact Environmentally Sensitive Habitat Area or other protected resources, as identified within the approved Carlsbad Local Coastal Program; therefore, the project would not conflict with the adopted Carlsbad Local Coastal Program, including the Development Standards in Section 21.203.040 of the Coastal Resource Protection Overlay Zone Ordinance and impacts would be less than significant.

Projects located within Carlsbad are subject to the requirements of the Carlsbad HMP and provisions of the Carlsbad Municipal Code, including the Habitat Preservation and Management Requirements (HPMR) Ordinance. The HPMR requires all development to comply with the Carlsbad HMP as well as the Implementing Agreement, the MHCP, the Natural Communities Conservation Plan and 10(a)(1)(B) permit conditions. Construction of the project would not be permitted to occur until all processing and permitting requirements of the HPMR Ordinance are fulfilled. As evaluated above within Section 4 a) and Section 4 b), the project would be constructed within disturbed and developed areas. Several project components would be constructed adjacent to off-site undeveloped areas that could support sensitive species and habitat; however, avoidance measures are proposed to ensure that potential indirect impacts to sensitive species and habitats are avoided or mitigated to less than significant levels. As required, potential impacts on sensitive species and habitats will be avoided or mitigated consistent with the HPMR Ordinance and HMP. Implementation of the project would therefore not conflict with the adopted HPMR Ordinance and impacts would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than significant. As evaluated above in Section 4 a), Section 4 b), and Section 4 e), several project components could result in potential impacts to sensitive species and habitat that are addressed within the Carlsbad HMP. The CMWD is required to comply with the Carlsbad HMP and provisions of the Carlsbad Municipal Code, including the HPMR Ordinance. Projects requiring approvals or permitting (e.g., HMP Permit) from the Carlsbad Planning Division are required to incorporate project-level avoidance and minimization measures into the project description to be consistent with the conditions of the Carlsbad HMP. In addition, projects are required to implement project-specific procedures, protocols, and mitigation measures described in the Carlsbad HMP if sensitive species and habitat could be adversely affected by the project. Avoidance measures are proposed to ensure that potential indirect impacts to sensitive species and habitats are avoided or mitigated to less than significant levels. As required, potential impacts on sensitive species and habitats will be avoided or mitigated consistent with the Carlsbad HMP requirements. Implementation of the Phase III project would therefore not conflict with the adopted Carlsbad HMP and impacts would be less than significant.

Mitigation:

The following measures would mitigate the potential significant impacts identified in Section 4 a), Section 4 b), and Section 4 c) to less than significant levels.

Bio-1A **Avoidance of Nesting Birds and Raptors.** To prevent impacts to nesting birds, including raptors, protected under the federal MBTA and CDFG Code, the CMWD shall enforce the following:

Prior to removal or damage of any active nests or any tree pruning or removal operations during the prime nesting seasons, that being from March 15 to May 30, a qualified biologist shall survey the trees to determine if there are any active nests within 500 feet of the area of tree removal or pruning. If any active nests are located within 500 feet, no tree pruning or removal operations can occur until the nests are vacated or until the end of the prime breeding season, whichever occurs later. In addition, prior to any tree removal or pruning operations proposed outside of the prime nesting season but within the period of January 15 to September 15, a qualified biologist shall confirm in writing that no disturbance to active nests or nesting activities would occur. Documentation from a qualified biologist consistent with these requirements shall be submitted to the City Planner for review and approval. A note to this effect shall be placed on the construction plans.

Bio-1B **Pre-Construction Biological Resource Surveys**. Prior to construction of project components ES 1, ES 2, ES 5, ES 8, and ES 9 that will occur within disturbed or developed land, but are sited immediately adjacent to an undeveloped open space area (i.e., an area supporting naturalized habitat, sensitive habitat, and/or habitat potentially suitable for special status species), the CMWD shall retain a qualified biologist to perform a pre-construction survey to verify existing biological resources adjacent to the project construction areas. The CMWD shall provide the biologist with a copy of the project plans that clearly depict the construction work limits, including construction staging and storage areas, in order to determine which specific portion(s) of the project will require inspection of adjacent open space areas during the pre-construction survey. At minimum, the biologist shall perform a visual inspection of the adjacent open space area in order to characterize the existing habitat types and determine the likelihood for special status species to occur, including the coastal California gnatcatcher (*Polioptila californica californica*), migratory songbirds, and other bird species with the potential to breed in the area. The pre-construction survey results shall be submitted to the CMWD prior to construction in order to verify the need for additional construction measures proposed within Bio-1C through Bio-1F.

Bio-1C **Orange Construction Fencing**. If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall retain a qualified biologist to supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction, and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied and mitigation identified. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the City Planner prior to and concurrent with construction.

Bio-1D **Construction-Related Noise**. Construction noise created during the general breeding season (January 15 to September 15) that could affect the breeding of the coastal California gnatcatcher, migratory songbirds, and other bird species associated with adjacent undeveloped areas shall be avoided. No loud construction noise (exceeding 60 dBA hourly average, adjusted for ambient noise levels, at the nesting site) may take place within 500 feet of active nesting sites during the general breeding season (January 15 through September 15).

If it is confirmed through the implementation of mitigation measure Bio-1B that the project could result in construction-related noise impacts to breeding birds during the general breeding season, the CMWD shall retain a qualified biologist to monitor the construction operations. The biological monitor shall be present to monitor construction activities that occur adjacent to the undeveloped open space area potentially supporting breeding birds. The monitor shall verify that construction noise levels do not exceed 60 dBA hourly average and shall have the ability to halt construction work, if necessary, and confer with the City Planner, USFWS, and CDFG to ensure the proper implementation of additional protection measures during construction. The biologist shall report any violation to the USFWS and/or CDFG within 24 hours of its occurrence.

Bio-1E **Construction Staging Areas**. If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall design final project construction staging areas such that no staging areas shall be located within sensitive habitat areas. The construction contractor shall receive approval by the City Planning & Engineering Divisions prior to mobilizations and staging of equipment outside of the project boundaries.

Bio-1F **Contractor Training.** If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall retain a qualified biologist to attend pre-construction meetings to inform construction crews of the sensitive resources and associated avoidance and/or minimization requirements.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
5. Cultural Resources				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Explanation:

Information presented in this section is based upon a cultural resources records search performed by Atkins at the South Coastal Information Center in January 2012 (Atkins 2012) for the 2012 Master Plans EIR, which included the Area of Potential Effect of the proposed Phase III project.

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant Impact. Based on the record search conducted for the Master Plans EIR, no historical resources are located within one mile of the proposed Phase III pipeline alignments, Twin D site, or the CWRF expansion. Therefore, it is unlikely that the project would cause a substantial change in the significance of a historical resource and impacts would be considered less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact. Numerous archaeological resources of varying sizes are located within the project area. Archaeological resources are generally equally distributed throughout the project area, but can be described

as concentrated around and near existing, large water resources, including Buena Vista Lagoon, Agua Hedionda, and Batiquitos Lagoon. Based upon the frequency and distribution of these sites, as well as the results of the Native American Heritage Commission (NAHC) records search, the entirety of the project area is considered to exhibit high archaeological resource sensitivity.

The records search conducted for the 2012 Master Plans EIR identified one known archaeological resource in the proximity of ES 7, as proposed in the 2012 Recycled Water Master Plan. Refer to Table 4.4-4 of the 2012 Master Plans EIR, CIP Projects with Potential to Result in Significant Impacts to Known Archeological Resources or Would Occur in Previously Undisturbed Areas. The entirety of ES 7 includes the proposed Phase III alignment and an extension of pipeline to serve the proposed Quarry Creek Development. The known cultural resource identified in the 2012 Master Plans EIR is in the vicinity of the Quarry Creek portion of ES 7, located in currently undeveloped land. This portion of ES 7 is not included as part of the proposed project. Potential impacts to cultural resources that would result from the portion of ES 7 in undeveloped land will be addressed in the EIR that is being prepared for the Quarry Creek development.

The CWRF expansion and new storage tank would make improvements to existing facilities. The site for the new tank has been previously graded. ES 4A would convert an existing pipeline to recycled water use. No ground disturbing activities would be required for construction of the CWRF expansion, construction, or relocation of a new tank, or implementation of ES 4A. Therefore, these projects would not result in any impacts to known or unknown archeological resources.

The remainder of the components of the Phase III project, including ES 1, ES 2, ES 5, ES 8, ES 9, ES 18, and the portion of ES 7 not within the Quarry Creek Development (as shown in Figure 8) would involve installation of new pipelines located entirely within existing roadways. These project components were included in Table 4.4-2 of the Master Plans EIR, CIP Projects Where Impacts are Minimized through Implementation of Project Design Features. Archaeological resources within the roadway ROW would have been removed or destroyed by previous construction. Therefore, the proposed Phase III project would not result in additional impacts to archeological resources in these areas. However, due to the high cultural resource sensitivity in the area, unknown cultural resources may still be uncovered during ground disturbing construction activities. Implementation of the procedure listed in Appendix A for the accidental discovery of archeological resources would reduce potential impacts to potentially significant unknown archaeological resources to a less than significant level.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant. A paleontological resource analysis of the project area was included as part of the 2012 Master Plans EIR (Burwasser 2010; Kennedy and Tan 2002). According to this data, the project area contains one geologic unit of high paleontological sensitivity: the Santiago formation. Excavation and construction activities associated with the Phase III project components located within the Santiago formation have the potential to disturb or destroy paleontological resources. The Phase III project components proposed in areas with high paleontological sensitivity include ES 1, ES 5, ES 7, and ES 18. However, these project components would be located entirely within existing roadways. Potential paleontological resources in these roadway ROWs have already been disturbed and the Phase III project would not result in additional impacts to paleontological resources. Therefore, impacts to paleontological resources from the Phase III project would be less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant. None of the Phase III project components are proposed within any formal cemeteries. However, previously recorded archaeological sites within the project area have included human burials, which indicate that there is a potential for human remains to be present in the vicinity of the proposed project. In addition, the NAHC has indicated that human burials are located within and near the project area and beyond the boundaries of formal cemeteries.

Sections 15064.5(d) and (e) of the CEQA Guidelines assign special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under

PRC Section 5097.98. The disturbance of any human remains is considered a significant impact, regardless of archaeological significance or association. Any ground disturbing activities associated with implementation of the Phase III project, including trenching and excavation during construction, would have the potential to unintentionally disturb human remains, resulting in a significant impact.

Implementation of the required protocol in accordance with PRC Section 5097.98 and California State Health and Safety Code Section 7050.5, to be followed upon unintentional disturbance of human remains, would minimize potential impacts on human remains. California State Health and Safety Code Section 7050.5 dictates that no further disturbance is permitted to occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined by the County Coroner to be Native American, the NAHC will be notified within 24 hours, and the guidelines of the NAHC will be adhered to in the treatment and disposition of the remains. A professional archaeologist with Native American burial experience will conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist will be retained by CMWD to provide technical assistance to the Most Likely Descendant, including but not limited to, the excavation and removal of the human remains. Compliance with California State Health and Safety Code Section 7050.5 and PRC Section 5097.98 would reduce any potential impacts to human remains from the Phase III project to a level below significance and no further mitigation would be required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
6.	**Geology and Soils**				
	Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii)	Strong seismic ground shaking?	☐	☐	☒	☐
iii)	Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv)	Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Explanation:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than significant. The areas within the vicinity of the project components are not underlain by any known active, potentially active, or inactive faults, and are not located within any Alquist-Priolo Earthquake Fault Zones delineated by the California Geological Survey (2010). Active faults in the region that could result in rupture include segments of the San Jacinto, Elsinore, and Rose Canyon fault systems. These faults are not located within the project area. Additionally, none of the proposed facilities involve human habitation; therefore, the Alquist-Priolo Earthquake Fault Zoning Act is not applicable to the project. Therefore, the project would not expose people or structures to substantial adverse effects related to fault rupture.

ii. Strong seismic ground shaking?

Less than significant. San Diego County has a high seismic potential (County 2009). Although the Phase III project does not propose any facilities involving human habitation, seismic groundshaking has the potential to result in significant structural damage or facility failure, which could result in flooding and/or loss of recycled water. Due to the high seismic potential of the entire county, groundshaking risks cannot be entirely eliminated. However, the CMWD would be required to implement the relevant requirements of the 2010 California Building Code (as updated or amended) and California Department of Mines and Geology's Special Publications 117, which would reduce groundshaking impacts to the extent feasible. Additionally, as described in the construction measures listed in Appendix A, a site-specific geotechnical investigation will be completed during the engineering and design of each Phase III project component that would require excavation in previously undisturbed soil. CMWD would be required to implement any measures included in the geotechnical investigation to address potential site-specific hazards. Therefore, potential impacts related to groundshaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction; or

iv. Landslides?

Less than significant. Liquefaction is not known to have occurred historically in San Diego County. However, the potential exists for liquefaction to occur in areas with loose sandy soils combined with a shallow groundwater table, which typically are located in alluvial river valleys/basins and floodplains (County 2009). Additionally, certain lands within the vicinity of the project components are subject to landslides. Generally, landslide potential is considered high for areas that contain slopes of 15 percent or greater.

Figure 4.6-2, Geohazards, of the 2012 Master Plans EIR depicts the CIP projects that generally have a high potential for liquefaction and landslides based on regional soil data. ES 4A is located in a potential landslide hazard area; however, this project component would convert an existing potable water pipeline to recycled water use. No new risk of damage or facility failure would result from this project component because no construction or ground disturbance would occur, and no new facilities would be constructed.

ES 1, ES 5, and ES 7 are also located in areas of high landslide risk. ES 2 and ES 9 are located in liquefaction hazard areas. ES 8 and ES 18 would potentially be exposed to landslide and liquefaction hazards, depending on the location of the segment. However, as listed in Appendix A, a site specific geotechnical investigation would be completed during the engineering and design of each project that would require excavation in previously undisturbed soil. CMWD would be required to implement any measures included in the geotechnical investigation to address potential site-specific hazards related to liquefaction and landslides. Therefore, potential impacts related to liquefaction and landslides would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant. The CWRF expansion, storage tank construction or relocation, and ES 4A would not result in any earth-disturbing activities that would result in the exposure of soils. However, earth-disturbing activities such as excavation and soil stockpiling associated with the construction of the remaining Phase III project components would expose soils that could be subject to erosion during rain and wind events. However, as discussed in below in Section 9a), construction of the proposed Phase III project would be subject to the Storm Water General Permit or General Linear Utility Permit requirements to protect water quality during construction, particularly from eroded sediment. In addition, construction would be subject to requirements established by the cities of Carlsbad, Oceanside, or Vista, depending on project location. Compliance with the applicable regulations listed in Appendix A, including the General Linear Utility Permit, and/or local development standards, including the preparation of a SWPPP and/or implementation of applicable BMPs, would reduce the potential increase in erosion associated with construction activities to a less than significant level.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than significant. See Section 6a). A site-specific geotechnical investigation would be completed during the engineering and design of each project in a potential hazard area (ES 1, ES 2, ES 5, ES 7, ES 8, ES 9, and ES 18) that makes recommendations for any site-specific hazards. Therefore, potential impacts related to unstable soil would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than significant. Figure 4.6-2, Geohazards, of the 2012 Master Plans EIR depicts the CIP projects that generally have a high potential for expansive soils based on regional soil data. None of the Phase III project sites are located in an area with high potential for expansive soils. Impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. The Phase III project proposes new infrastructure and would not involve the use of or need for septic tanks or and other alternative wastewater disposal systems. Implementation of the Phase III project would not affect existing sewer service. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
7. Greenhouse Gas Emissions				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Explanation:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant. California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO_2e) units for comparison. The CO_2e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure. The most common GHGs related to the project are CO_2 (CO_2e = 1), CH_4 (CO_2e = 21), and N_2O (CO_2e = 310).

The County of San Diego published its most recent Draft Guidelines for Determining Significance for Climate Change on June 20, 2012. The guidelines are based on regional data, including the incorporated cities such as El Cajon, and may be used by lead agencies in the region other than the County of San Diego. The purpose of the guidelines is to ensure that new development achieves its fair share of emissions reductions needed to meet the statewide Assembly Bill (AB) 32 mandate. The County's guidelines establish a screening level threshold of 2,500 MT CO_2e per year. Therefore, a project that emits more than 2,500 MT CO_2e annually during construction or operation would result in a potentially significant cumulative impact.

The 2012 Master Plans EIR quantified the GHG emissions that would result from construction and operation of all of the CIP Projects proposed in the Master Plans, including the Phase III project. Construction of the project would result in temporary emissions of GHG from the operation of construction equipment and from worker and building supply vendor vehicles. Equipment that is associated with construction activity includes dozers, rollers, dewatering pumps, backhoes, loaders, delivery, and haul trucks. The 2012 Master Plans EIR determined that the worst-case annual construction scenario, which included the Phase III project, would result in annual GHG emissions of 959 MT CO_2e. The worst-case construction scenario is described in greater detail in Section 2b). Construction of the Phase III project would be less than the overall total, and as a result would not generate significant GHG emissions during construction.

Operational GHG emissions from the Phase III project would include indirect emissions from electricity usage and direct emissions from mobile sources. The Phase III project would not result in an increase in demand for natural gas, water, or solid waste disposal services; therefore, no increase in GHG emissions would occur from these sources. Pipeline and storage projects, once constructed, would not require the use of electricity, emergency generators, or any other type of fuel-consuming operating equipment. However, the increase in the capacity of the CWRF would result in an increase in electricity demand. Existing electricity use at the CWRF is 1.2 million kWh (City of Carlsbad 2011). The CWRF expansion would double the capacity of the existing CWRF; therefore, it was assumed to result in a doubling of electricity demand. Therefore, the increase in capacity at the CWRF would result in a net increase in demand of 1.2 million kWh, which would result in estimated GHG emissions of 396 MT CO_2e (California Climate Action Registry 2009).

The proposed Phase III project components are underground pipelines, a storage tank, and an improvement to the existing CWRF facility. Following construction, the storage tank and underground pipelines would be passive and would not require regular maintenance. Occasional vehicle trips may be required for repair or inspection, similar to existing pipelines. No new vehicle trips would be required by the CWRF for maintenance or operation of the expansion. Therefore, the Phase III project would not generate a substantial net increase in vehicle trips. In the analysis in the 2012 Master Plans EIR, it was conservatively assumed that a net increase of one maintenance trip per day would be required, for a total increase of 5 miles based on the distance from the City of Carlsbad/CMWD operations buildings on Faraday Avenue to the farthest portion of CIP Project ES 4C. All of the project components are closer to the CMWD building than CIP Project ES 4C; therefore, annual GHG emissions would be less than the 1 MT CO_2e calculated for buildout of the Master Plans.

The total annual GHG emissions from construction of the CIP projects proposed in the 2012 Master Plans EIR (including the Phase III project) is 959 MT CO_2e. Operation of the Phase III project by itself is estimated to result in

operational GHG emissions of less than 397 MT CO_2e per year. Neither the construction nor operation of the Phase III project individually would exceed the significance threshold of 2,500 MT CO_2e per year. Even if construction and operational emissions would occur simultaneously (totaling 1,356 MT CO_2e), annual GHG emissions would not exceed the 2,500 MT CO_2e threshold. Therefore, the proposed Phase III project would not result in a significant impact related to GHG emissions.

b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant. AB 32, the California Global Warming Solutions Act of 2006, established statutory limits on GHG emissions in California. Under AB 32, the CARB is responsible for adopting rules and regulations to reduce statewide GHG emissions to 1990 levels by the year 2020. The CARB's Climate Change Scoping Plan outlines the state's strategy to achieve the 2020 GHG emissions limit and future emissions reduction targets established by Executive Order S-3-05. The County guidelines were established for the purpose of reducing the emissions of GHGs to meet the state requirements of AB 32. The guidelines are based on regional data, including the incorporated cities and may be used by lead agencies in the region other than the County of San Diego. The guidelines were developed in support of the County's Climate Action Plan that was approved in June 2012, and is compliant with AB 32. GHG emissions that are below the County's regional annual emissions threshold would be considered consistent with AB 32.

As discussed in Section 7 a), neither construction-related nor operational GHG emissions would exceed the regional significance threshold established by the County of San Diego. Therefore, the project would not conflict with guidelines established for the purpose of reducing the emissions of GHGs to meet the state requirements of AB 32.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
8.	**Hazards and Hazardous Materials**				
	Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Explanation:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than significant. Numerous federal and state regulations require strict adherence to specific guidelines regarding the use, transportation, disposal and accidental release of hazardous materials. Regulations associated with transporting, using or disposing of hazardous materials include the Resources Conservation and Recovery Act, which provides the 'cradle to grave' regulation of hazardous wastes; Emergency Planning and Community Right-to-Know Act, which requires any infrastructure at the state and local levels to plan for chemical emergencies; the International Fire Code, which regulates the use, handling, and storage requirements for hazardous materials at fixed facilities; the Hazardous Materials Transportation Act, which governs hazardous materials transportation on U.S. roadways; California Health and Safety Code, which provides threshold quantities for regulated hazardous substances and the establishment of Hazardous Materials Release Response Plans; California Code or Regulations Title 22, which regulates the generation, transportation, treatment, storage and disposal of hazardous waste; California Code or Regulations Title 27, which regulates the treatment, storage and disposal of hazardous solid wastes; SB 1889, which defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive; and the Consolidated Fire Code, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code.

Construction activities associated with the Phase III project would have the potential to generate small amounts of hazardous materials and wastes. Petroleum products such as fuels and oils would be the predominant materials used during construction due to operation of motorized construction equipment and vehicles. The main hazardous wastes produced by construction activity would be waste oil and oil-saturated materials from construction equipment. Hazardous materials and waste would be managed and used in accordance with all applicable federal, state, and local laws and regulations, described above. There would be no routine transport, storage, use, or disposal of significant amounts of hazardous materials. Minimal amounts of hazardous materials may be transported to and from a site during construction, but the transport of such materials would be temporary and subject to applicable regulations, such as the Hazardous Materials Transportation Act. Therefore, impacts associated with hazardous wastes generated from construction activities would be less than significant.

Following construction, the proposed pipelines and storage tank would be passive and would not require the routine transport, use, or disposal of hazardous materials. However, the CWRF currently uses chemicals and other hazardous materials in its treatment processes. The CWRF expansion would result in additional use of these materials, including chlorine. A Hazardous Materials Business Plan (HMBP) has already been prepared for the CWRF in accordance with County of San Diego Department of Environmental Health (DEH), Hazardous Materials Division requirements. The HMBP includes an inventory of all hazardous materials and a description of each material's properties, identification of the site operator, a map identifying the location of the hazardous materials, emergency response procedures for major and minor emergencies, an emergency response plan, and a description of required employee training.

Implementation of the CWRF expansion would result in a slight increase in the use of hazardous materials already used at the CWRF due to an increase in the capacity of the treatment facility. Hazards related to these materials

could occur during storage, transportation, use, disposal, or accidental release. The proposed new CWRF treatment facilities would be required to be incorporated into the existing CWRF HMBP. The procedures in the plan comply with U.S. Department of Transportation (Office of Hazardous Materials Safety) and CHP regulations for the transportation of hazardous materials along state highways, and are subject to approval by the DEH. Disposal of CWRF equipment, such as filters, at the end of its lifecycle would be disposed of in accordance with federal, state and local laws and regulations. Therefore, routine use, transport, or disposal of hazardous materials at the CWRF would be managed and used as required by all applicable federal, state, and local laws and regulations, such as Resources Conservation and Recovery Act Title 22, the Hazardous Waste Control Law, Hazardous Materials Transportation Act, and Hazardous Material Business Plans. Impacts associated with the use, transport, and disposal of hazardous materials generated from operational activities would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant. Construction of the proposed project would involve the transport and use of fuels, oil, and other fluids associated with construction equipment. Leaks or spills may occur during construction, potentially releasing hydrocarbons to the environment; however, compliance with applicable California Department of Toxic Substances Control regulations for the handling of hazardous materials and spill cleanup procedures would prevent potentially significant impacts. Operation of the pipelines would not result in the release of hazardous materials to the environment. Operation of the CWRF expansion would be subject to the HMBP prepared for the CWRF which has been approved by the DEH. This plan establishes procedures to minimize the potential for upsets or accidents to occur in accordance with federal, State, and local regulations, and establishes emergency procedures should an accident occur. Therefore, impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. Operation of the storage tank and pipelines would not result in the release of hazardous materials to the environment. There are no schools located within one-quarter mile of the CWRF. No impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

Less than significant with mitigation. A record search of the areas in the vicinity of the Phase III project components was conducted by Atkins in February 2012 of federal, state, and local databases of sites that generate, store, treat, or dispose of hazardous materials, or sites for which a hazardous materials release or incident has occurred. The records search included the GeoTracker database, the EnviroStor database, and the Site Assessment and Mitigation Program. The GeoTracker database is a geographic information system that provides online access to environmental data including underground fuel tanks, fuel pipelines, and public drinking water supplies. The EnviroStor database includes the following site types: Federal Superfund Sites (National Priorities List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. The Site Assessment and Mitigation Program lists sites in San Diego County that require permitting for handling hazardous materials.

The GeoTracker Database identified approximately 50 recorded sites along the Phase III project alignments and one near the CWRF. Sites were identified along every Phase III alignment except ES 7. Site records included leaking underground storage tanks, land disposal sites, and other cleanup sites. Ten out of the 50 recorded sites are open cases; the remainder of the cases have been closed. Open cases involving leaking underground storage tank and cleanup sites are concentrated near McClellan-Palomar Airport and gas stations along El Camino Real. One closed underground storage tank case is located at the Encina Water Pollution Control Facility, adjacent to the CWRF. The EnviroStor database identified one permitted hazardous materials facility (Cabrillo Power Plant) and

one cleanup site along ES 2, one permitted facility (Vista Industrial Products) and one school site investigation along ES 4A, and one site evaluation of a dry cleaning facility along ES 9. The Site Assessment and Mitigation Program lists 783 permitted hazardous materials establishments in Carlsbad. None of identified sites are located within a roadway ROW; however, the potential exists for the soil underlying the Phase III project sites to have been previously contaminated by hazardous substances as a result of former uses of the sites surrounding the alignment or leaks from unidentified underground storage tanks. Typical pathways of exposure to pollutants from existing contamination include inhalation of volatiles and fugitive particulates, and dermal absorption.

Potential exposure to contaminants could occur to construction workers during grading, trenching, excavation and site development activities that would expose potentially contaminated soil. ES 4A, construction or relocation of the storage tank, and the CWRF expansion do not require any ground-disturbing construction activities that would potentially expose workers to contaminated soil. ES 7 is proposed in a residential neighborhood, which typically does not include permitted hazardous materials establishments, and no hazardous materials sites were identified along this alignment. Therefore, construction of ES 4A, ES 7, storage tank, and the CWRF expansion would not result in a significant impact related to listed hazardous materials sites during construction. However, construction of ES 2, ES 5, ES 8, ES 9, and ES 18 would have the potential to encounter contaminated soil during construction activities and expose construction workers to a significant hazard. Impacts during construction would be potentially significant. However, implementation of mitigation measures Haz-1 and Haz-2 would reduce potential hazards related to listed hazardous materials sites to a less than significant level.

None of the Phase III project components propose a facility for human habitation that would potentially result in long-term exposure to risks from an existing hazardous materials site. The CWRF expansion makes interior improvements to an existing building at the CWRF. Therefore, workers at the CWRF would not be exposed to any additional risk from hazardous sites as a result of the project. Additionally, the site located adjacent to the CWRF at the EWPCF (Case No. T0607300568) is closed and no future action required. Therefore, potential impacts during operation would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. ES 1 would be located within the Palomar-McClellan Airport Influence Area and Flight Activity Zone. The proposed pipeline would be located underground and does not involve any construction or long-term operational features that would result in an airport safety hazard for people residing or working in the project area. No structures for human occupancy are proposed in the Flight Activity Zone. Activities at Palomar-McClellan Airport would be unaffected by the proposed project. Additionally, none of the proposed Phase III project components are within the Airport Influence Area for Oceanside Municipal Airport. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. No private airstrips are located in the vicinity of the Phase III project. No impact would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant. Interference with an adopted emergency response or evacuation plan would result in an adverse physical effect to people or the environment by potentially increasing the loss of life and property in the event of a disaster. The CWRF expansion, construction or relocation of the storage tank, and ES 4A would make improvements to existing facilities and would not result in any impact to emergency response or evacuation plans during construction or operation. Following construction, the proposed pipelines in ES 1, ES 2, ES 5, ES 7, ES 8, ES 9, and ES 18 would be located underground. No impact to emergency response or evacuation plans would occur. However, construction activities associated with these pipelines, particularly excavation and trenching activities associated with pipeline extensions or other improvements that are within roadway ROW, may result in temporary, construction-related lane and road closures or detours. Temporary roadway closures could potentially

interfere with emergency plans and procedures if appropriate authorities are not properly notified, or multiple projects are constructed during the same time and multiple roadways used for emergency routes are concurrently blocked. However, the CMWD has committed to preparation and implementation of a traffic control plan, as described in the list of construction measures in Appendix A. With implementation of a traffic control plan, the Phase III project would not result in a potentially significant impact associated with impairment or interference with emergency response or evacuation plans.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less than significant. Construction activities may result in a potential fire risk due to the presence of fuel-burning construction equipment. The Phase III project components are located entirely within existing facilities or existing roadway ROW in developed areas. However, some construction would occur adjacent to undeveloped areas. The CMWD has committed to construction measures, listed in Appendix A to reduce fire risk during construction. Preparation of a brush management plan and dissemination of fire safety information to construction crews would ensure that construction impacts would not be significant.

Mitigation:

The following mitigation measures would reduce potential impacts related to listed hazardous materials sites (Section 8d) to a less than significant level.

Haz-1 **Excavation Monitoring.** During excavation activities for ES 2, ES 5, ES 8, ES 9, and ES 18, CMWD shall provide monitoring by an individual licensed in the State of California to assess soil conditions for the potential presence of contaminated soils. In the event of encountering hydrocarbon contaminated soils, these soils shall be properly tested, managed, and disposed of at a licensed facility in accordance with DEH requirements.

Haz-2 **Construction Worker Health and Safety Work Plan.** Prior to construction of ES 2, ES 5, ES 8, ES 9, or ES 18, CMWD shall have a project-specific health and safety work plan prepared and distributed to the construction workers to address the potential exposure to hazardous materials associated with working with or near contaminated soil. This work plan shall comply with all County of San Diego DEH work plan requirements including Community Health and Safety Planning to address physical hazards, site security, management of soil and water, and monitoring equipment. A description of engineering controls and measures that would be put in place to prevent and/or reduce the risks posed to site workers, public and the environment in the unlikely event of excavating contaminated soil from the construction area shall be provided in the work plan and submitted to the DEH for approval. The engineering controls and measures to be implemented if potentially contaminated soil is uncovered shall include, but not be limited to the following:

1) An exclusion zone and support zone shall be established prior to start and during excavation activities. No unauthorized personnel shall be allowed in these zones. Personnel authorized to work in these zones shall have the required training and qualifications including the California Occupational Safety & Health Administration (OSHA) HAZWOPER training.

2) Written notifications shall be posted on the perimeter fencing in advance of start of excavation to notify the general public and hotel staff/operators of the nature and duration of work activities. The postings shall also include emergency contact names and telephone numbers.

3) No eating, drinking or smoking shall be allowed within the exclusion or support zones.

4) Site workers shall be required to wear personal protective equipment including gloves, dust masks or respirators, hard hats, steel toed boots, Tyvek® protective clothing, eye shield and ear plugs or ear muffs.

5) A decontamination zone shall be established for site workers to use prior to exiting the exclusion zone.

6) All excavated soil shall be underlain and covered by plastic or Visqueen™, if stored on site, to prevent or reduce off-gassing into the atmosphere and to protect the stockpile from erosion due to storm runoff. If on-site temporary storage becomes necessary, the stockpiles shall be placed downwind downstream of any sensitive receptors in the area.

7) All work shall stop if ambient air concentrations exceed acceptable thresholds as approved by the San Diego County DEH, and excavation shall be backfilled with inert soil or other material until concentration drop back to normal.

8) Exposure to dust and potential inhalation hazards shall be controlled by lightly spraying the excavated materials with clean water as they are stockpiled on site or as they are transferred to trucks for shipment offsite. A dust monitor shall be used on site to measure airborne dust during activities that are expected to generate dust. If dust levels exceed permissible exposure levels as set by OSHA standards, additional measures for dust control such as the use of industrial non-toxic dust suppressants shall be implemented.

9) Runoff around the excavation site shall be controlled by placing fiber rolls or other similar types of erosion and runoff control means to direct surface runoff and to protect the nearby downstream storm drains.

10) Vehicular and pedestrian traffic shall be directed away from the construction zone prior to and during excavation and follow-on activities in accordance with a traffic plan approved by the City of San Diego or City of Oceanside, as applicable, and in coordination with CMWD.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Explanation:

a) Violate any water quality standards or waste discharge requirements?

Less than significant. The Phase III project would have the potential to contribute to a violation of water quality standards or the degradation of surface water quality during construction. Construction of the Phase III project could result in polluted runoff through activities such as excavation, stockpiling of soils and materials, and concrete pouring. This runoff would have short-term adverse impacts on surface water quality. Typically, construction activities involve various types of equipment such as dozers, scrapers, graders, loaders, compactors, dump trucks, water trucks, and concrete mixers. Additionally, soils are typically stockpiled outdoors, in addition to other materials that would be used later during construction.

Pollutants associated with these construction activities that would substantially degrade water quality include soils, debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. ES 4A would not make improvements to an existing pipeline and would not require any heavy construction equipment or ground-disturbing activities. The CWRF expansion and construction or relocation of the storage tank would make improvements to existing facilities on previously graded sites. No ground-disturbing acidities would be required and potential pollutants from construction equipment would be contained within the CWRF or its existing drainage system. Therefore, construction of these project components would not result in significant water quality impact during construction.

Pollutants associated with construction activities for ES 1, ES 2, ES 5, ES 7, ES 8, ES 9, and ES 18 would potentially degrade water quality if they are washed by storm water or non-storm water into surface waters. Sediment is often the most common pollutant associated with construction sites because of the associated earth-moving activities and areas of exposed soil. Sediment that is washed off site can result in turbidity in surface waters, which can impact aquatic species. In addition, when sediment is deposited into receiving water it can smother organisms, alter the substrate and habitat, and alter the drainage course. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete slurries discharged from construction sites could also impact aquatic plants and animals downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters and could impact wildlife as well as aesthetic value. The potential increase in pollutants associated with construction activities could result in a violation in water quality standards or a substantial degradation of water quality.

However, construction of the proposed Phase III project would be subject to the Storm Water General Permit or General Linear Utility Permit (for expansion segments that would disturb less than one acre) requirements, in addition to requirements established by the cities of Carlsbad or Oceanside, depending on project location. The City of Carlsbad Storm Water Standards Manual and the Oceanside Grading and Erosion Control Ordinance outline specific requirements to ensure compliance with all applicable storm water ordinances. Every construction activity within Carlsbad that has the potential to negatively affect water quality must prepare a construction SWPPP. A SWPPP provides for temporary measures to control sediment and other pollutants during construction as required

by the most recent statewide permit regulating construction activities. The SWPPP requirements in the Storm Water Standards Manual ensure compliance with the Carlsbad Storm Water Ordinance. Additionally, construction activities must comply with all construction BMPs required pursuant to Title 15 of the Carlsbad Municipal Code, Grading and Drainage, including minimizing and stabilizing disturbed areas, protecting slopes and channels, controlling the site perimeter, and controlling internal erosion.

If dewatering is required for any Phase III project, dewatering and discharge activities would be subject to water quality guidelines outlined by the National Pollutant Discharge Elimination System administered by the San Diego RWQCB. Additionally, the CMWD has committed to the measures listed in Appendix A to minimize potential water quality impacts, including a spill contingency plan and requirements for groundwater disposal, if encountered. Compliance with the proposed project features and the applicable regulations listed in Appendix A would reduce the potential increase in pollutants associated with construction activities to a less than significant level.

Following construction, the Phase III project would not result in any new impervious surfaces and does not include any components that would generate potential water quality pollutants. Therefore, the Phase III project would not increase runoff and would not result in a violation of waste discharge requirements from operation. Impacts would be less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than significant. None of the Phase III project components would affect groundwater recharge because they would not involve the extraction or use of groundwater supplies. Further, each project component would comply with all applicable construction storm water permits, which require the implementation of construction and post construction BMPs, as described above in Section 9a). Compliance with the construction permits would reduce the potential for the project to substantially interfere with groundwater quality to a less than significant level. The construction and operation of the proposed Phase III project would not use groundwater and would not directly affect groundwater levels. Dewatering, a method which pumps groundwater into either a surface water body or directly into a stormwater drainage system, may be required to prepare sites for placement of proposed pipelines and other underground facilities; however, the potential impact to groundwater would be temporary and would not substantially deplete groundwater supplies. Further, the Phase III project would only result in an increase in impervious surfaces at the new storage tank site and would not interfere with groundwater recharge. Therefore, a less than significant impact would occur as a result of the Phase III project.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

Less than significant. Land-disturbing construction activities for proposed Phase III project, such as grading, trenching, or excavation, have the potential to result in localized temporary or permanent alteration of drainage patterns. This can lead to deposition of pollutants and sediment to the watershed outlets and an increase in polluted runoff to surface receiving bodies. However, as discussed in Section 9a), project design features and existing state and local regulations are in place to ensure that impacts to water quality from construction activities would not occur, including increases in sediment runoff. These regulations require the implementation of BMPs during construction that minimize disturbance, protect slopes and reduce erosion. Compliance with existing regulations would reduce the potential increase in polluted runoff, erosion and siltation associated with construction to a less than significant level. Upon completion of construction, no increase in impervious surfaces would occur as a result of the Phase III project. Trenched areas would be restored to their previous condition and no alteration of the drainage pattern would occur. Therefore, construction and operation activities associated with the project would not substantially alter drainage patterns and would not increase erosion and siltation.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less than significant. Land-disturbing construction activities, such as grading and excavation, could result in the localized alteration of drainage patterns. Temporary ponding and/or flooding could result from temporary alterations of the drainage system that reduce its capacity to carry runoff. However, construction of the Phase III project would be required to comply with existing regulations that reduce the likelihood of alterations in drainage to result in flooding impacts, such as those listed above in Section 9a). Through compliance with existing local and state regulations, including implementation of construction BMPs, construction activities associated with the Phase III project would not increase the rate and amount of surface runoff to streams and rivers in a manner which would result in flooding on or off site.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than significant. Drainage facilities including storm drains, culverts, inlets, channels, curbs, roads, or other such structures are designed to prevent flooding by collecting storm water runoff and directing flows to either the natural drainage course and/or away from development. If drainage facilities are not adequately designed, built, or properly maintained, the capacity of the existing facilities can be exceeded resulting in flooding and increased sources of polluted runoff. As discussed in Section 9d), the Phase III project would have the potential to result in alterations of drainage patterns during construction. This alteration in drainage patterns could exceed the capacity of existing or planned on-site and off-site storm water drainage systems.

Storm water discharges are generated by precipitation and runoff from land, structures, and other surfaces. Substantial increased runoff volumes would have the potential to overload existing drainage facilities and increase flows and velocity which could result in flooding, increased erosion, and impacts to downstream receiving waters and habitat integrity. However, construction of the Phase III project would be required to comply with state and local stormwater regulations, including construction BMPs, which reduce the likelihood of runoff exceeding the capacity of an existing storm water drainage system. Through compliance with the existing regulations, the Phase III project would not increase runoff in volumes that would exceed pre-project site conditions and would not exceed the capacity of existing storm water drainage systems. Impacts would be less than significant.

f) Otherwise substantially degrade water quality?

Less than significant. As discussed in Section 9 a), compliance with applicable state and local regulations would prevent potentially significant impacts to water quality. Operation of the proposed pipelines would be entirely underground and would not discharge pollutants into receiving waters. The storage tank would be a passive facility on an existing storage tank site and would not discharge pollutants into receiving waters. The CWRF expansion makes improvements to an existing facility and would not discharge pollutants into receiving waters. Therefore, the proposed project would not otherwise substantially degrade water quality. Impacts would be less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No impact. The Phase III project does not include the provision of any housing; therefore, the project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or FIRM or other flood hazard delineation map. No impact would occur.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No impact. The Phase III project consists of underground pipelines and improvements to existing facilities. Therefore, the project would not place structures which would impede or redirect flow within a 100-year flood hazard area. No impact would occur.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No impact. The dam inundation area potentially affecting the Phase III project surrounds the Maerkle Dam, in close proximity to ES 8. However, ES 8 proposed an underground pipeline that would not be affected by dam inundation. None of the Phase III project components involve housing or structures for human occupancy. Therefore, a dam inundation event would not result in injury or death related to proposed Phase III project. No impact would occur.

j) Inundation by seiche, tsunami, or mudflow?

No impact. A seiche is a standing wave in a completely or partially enclosed body of water. Although Maerkle Reservoir is located near ES 8, this water body is not large enough to be subject to seiches. Some overtopping of the reservoirs may occur; however, ES 8 probably an underground pipeline. The Phase III project does not propose any structures that would be at risk from seiches.

A tsunami is a very large ocean wave caused by an underwater earthquake or volcanic eruption. Tsunamis can cause flooding to coastlines and inland areas less than 50 feet above sea level and within one mile of the shoreline. The CWRF expansion, ES 2, and ES 9 would be located within one mile of the coastline. However, these project components propose improvements to an existing facility and underground pipelines. The Phase III project would not result in new facilities at risk for tsunami hazards. Therefore, the proposed project would not be exposed to a significant risk from a tsunami.

Debris flows, also known as mudflows, are shallow water-saturated landslides that travel rapidly down slopes carrying rocks, brush, and other debris. The project area contains many areas with steep slopes, or mountainous areas, that would potentially be subject to mudflows in the event of large amounts or precipitation. However, the Phase III project does not propose housing or buildings for human occupancy; therefore, life loss would not occur in the event of a mudflow. No new structures are proposed that would have the potential to be at risk of structure loss. Therefore, no impact related to mudflows would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
10. Land Use and Planning				
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☒	☐

Explanation:

a) Physically divide an established community?

Less than significant. The Phase III project proposes underground facilities and improvements on CMWD property containing existing facilities. The Phase III project would not result in any new physical barriers following construction. As discussed in Section 8g), the CMWD would implement traffic control plans during construction so that roadways affected by construction would continue to be usable by vehicles, pedestrians, and cyclists. Therefore, the project would not physically divide an established neighborhood during construction or operation.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant. Construction of the Phase III project would be located within existing or planned roads, an existing tank site, and the existing CWRF. Construction would result potential incompatibilities with surrounding land uses if it would require a roadway closure. However, as discussed in Section 8g), a traffic control plan would be implemented during construction of any Phase III project that would interfere with traffic flow. Construction activities would also have the potential to generate noise levels that are incompatible with surrounding land uses. As discussed in Section 12d), construction activities would comply with all restrictions on construction hours established in the Carlsbad and Oceanside noise ordinances so that construction would not disturb sleep. Construction activities would also include best management practices to minimize noise to daytime noise sensitive land uses. Therefore, construction of the proposed Phase III project would not result in any significant land use conflicts or incompatibilities.

The Phase III project proposes below-ground pipelines and upgrades to and existing tank site and the existing CWRF and would not have local land use effects after installation. The CWRF expansion would not result in any change in land use and would not result in any land use conflicts or incompatibilities. As discussed in Section 13, the Phase III project components were designed to meet present and future recycled water needs for projected growth within the areas served by the CMWD, consistent with the 2012 RWMP growth projections. Implementation of the Phase III project would not induce any unplanned growth. The 2012 RWMP is intended to implement the recycled water infrastructure necessary to meet the land use goals established in the Carlsbad General Plan. The Phase III project would also potentially require discretionary permits from the jurisdiction in which the project is located, whether it be Carlsbad or Oceanside. Future projects would be required to comply with all applicable land use regulations in order to obtain project approval and would be further evaluated at the time of project design and review. Therefore, the Phase III project would not conflict with the Carlsbad General Plans or other land use regulations and ordinances.

The Coastal Zone of Carlsbad is located within areas that are west of El Camino Real. The CWRF expansion, ES 1, ES 2, ES 5, ES 8, and ES 9 are located in this area. These project components would have the potential to affect the Coastal Zone, and some construction activities would be subject to a Coastal Development Permit (CDP). Since Carlsbad has an approved Local Coastal Program as of 1996, the City acts as the local permitting authority for the issuance of CDPs for projects located within its coastal zone, with a few exceptions. There are areas of "deferred certification" where the state retains permitting authority. For example, Agua Hedionda Lagoon lies outside of Carlsbad's permitting authority, and the project in its vicinity (ES 2) would require a CDP from the California Coastal Commission. All projects in the Carlsbad coastal zone would require review for consistency with the Local Coastal Program and California Coast Act prior to issuance of a CDP. The future required review and issuance of CDPs would ensure that infrastructure projects will be consistent with the Local Coastal Program; individual components would require this review on a project-by-project basis to ensure that impacts would be less than significant. Therefore, the proposed project would not conflict with the California Coast Act.

The Phase III project would not conflict with any existing general plan, coastal plan or any other land use plan or policy, or result in any land use incompatibilities. Impacts would be less than significant.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

Less Than Significant Impact. As evaluated above in Section 4 f), several project components could result in potential impacts to sensitive species and habitat that are addressed within the Carlsbad HMP. However, potential impacts on sensitive species and habitats will be avoided or mitigated consistent with the Carlsbad HMP requirements. Implementation of the Phase III project would therefore not conflict with the adopted Carlsbad HMP and impacts would be less than significant.

Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
11. Mineral Resources				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Explanation:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No impact. No mineral resources are actively being extracted and utilized as exploitable natural resources within Carlsbad. The Phase III project component areas are designated as Mineral Resource Zone 3, which indicated that mineral resources are potentially present. Additional geotechnical investigations would be required to determine whether these areas contain resources of value, or are located in areas that do not contain mineral resources (Dudek 2003, City of Vista 2011, and City of Oceanside 2002). Therefore, the Phase III project would not result in the loss of a known mineral resource. No impact would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No impact. The Phase III project would be constructed within roadway ROW or at existing facilities. Additionally, the proposed Phase III project consists of public utilities infrastructure that would not be considered incompatible land uses that would preclude areas surrounding the project components sites from being used for mineral extraction. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
12. Noise				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Explanation:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant. Construction of the project would potentially result in temporary increases in noise levels from the operation of construction equipment. Construction activities associated with the Phase III project would involve the use of heavy equipment during trenching and extraction, and installation of some equipment, such as the CWRF expansion equipment. Equipment that would be associated with construction of the proposed Phase III project includes dozers, rollers, dewatering pumps, backhoes, loaders, cranes, and delivery trucks. The magnitude of the impact would depend on the type of construction activity, type of construction equipment, duration of the construction phase, distance between the noise source and receiver, and any intervening topography. Sound levels of typical construction equipment range from 60 dBA to 90 dBA at 50 feet from the source (FHWA 2008).

The CMWD has committed to the measures list in Appendix A during construction of Phase III project to minimize noise effects to surrounding neighborhoods, including distancing noise sources from residences, compliance with applicable noise ordinances, and providing notice of construction to residents and property owners.

The City of Carlsbad prohibits construction after sunset on any day, and before 7:00 a.m., Monday through Friday, and before 8:00 a.m. on Saturday. Construction is prohibited all day on Sunday or holidays. In Oceanside, operation of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam, or electric hoist, or other appliance, the use of which is attended by loud or unusual noise, is prohibited between the hours of 10:00 p.m. and 7:00 a.m. As discussed above, the CMWD would comply with all limits on construction hours established in the cities' noise ordinances.

The City of Oceanside includes additional requirements for construction noise. In Oceanside, construction is required to comply with the exterior noise standards in Table 4 unless the City Manager determines that construction furthers the public interest and exempts construction from this required.

Table 4 City of Oceanside Exterior Noise Standards

Zone	Applicable Limit (decibels) [1]	Time Period
Residential Estate, Single-Family Residential, Medium Density Residential, Agricultural, Open Space	50 45	7:00 a.m. to 9:59 p.m. 10:00 p.m. to 6:59 a.m.
High Density, Residential Tourist	55 50	7:00 a.m. to 9:59 p.m. 10:00 p.m. to 6:59 a.m.
Commercial	65 60	7:00 a.m. to 9:59 p.m. 10:00 p.m. to 6:59 a.m.
Industrial	70 65	7:00 a.m. to 9:59 p.m. 10:00 p.m. to 6:59 a.m.
Downtown	65 55	7:00 a.m. to 9:59 p.m. 10:00 p.m. to 6:59 a.m.

[1] One-hour average sound level.

Source: City of Oceanside Municipal Code, Section 38.12

A portion of ES 5 is located in Oceanside. ES 5 would install a new pipeline to increase the availability of recycled water. The Oceanside City Management would determine if this project would further public interest and would be exempted from the hourly noise level limits. Regardless, the project design features above would minimize construction noise. Additionally, the proposed Phase III project would not be constructed all at once and not all equipment would be operating at the same time. Pipeline projects would be constructed in a linear fashion and would only result in construction noise at a particular receptor for a short time. Therefore, implementation of the Phase III project would not exposure people to or generate noise levels in excess of standards established in the Carlsbad or Oceanside noise ordinances during construction.

Following construction, the potential transportation noise sources for the Phase III project would be primarily associated with vehicular trips by employees. However, as addressed in Section 2, operation of the Phase III project would not generate a significant volume of new vehicle trips. The Phase III project would make improvements to the existing CWRF or are passive pipeline and storage projects that would not increase the number of maintenance trips typically required. Additionally, maintenance trips would be to facilities throughout the project areas and would not be concentrated on a specific roadway. Due to the minimal number and geographic distribution of vehicular trips associated with the maintenance of the Phase III project, transportation noise increases would be negligible. Therefore, the project would not result in significant permanent increases in ambient noise associated with transportation noise sources.

Following construction, the Phase III pipeline projects and storage tank would be passive and would not result in permanent increases in the ambient noise environment. No operational noise impact would occur. The CWRF expansion would increase the capacity of the CWRF by installing additional filtration units and chlorine contact basins. The CWRF currently generates noise from operation of pumps. Noise generating equipment would be located within a concrete enclosure to attenuate noise. Additionally, the CMWD has committed to the construction measures listed in Appendix A, including ensuring that operating equipment will be designed to comply with all applicable local, state, and federal noise regulations. Therefore, the increase in capacity at the CWRF would not permanently increase the ambient noise level surrounding the CWRF. Occasional maintenance and emergency repair activities on any Phase III project would have the potential to generate some additional noise. However, these activities are sporadic in nature and do not occur at the same location for long periods of time. Implementation of the Phase III project would not result in a significant impact related to substantial permanent increases in ambient noise levels.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than significant. Vibration sources associated with implementation of the Phase III would be generated primarily from project construction. Once installed, the Phase III project facilities include passive pipelines and treatment facilities that do not generate substantial levels of vibration.

Construction-related vibration would have the potential to impact nearby structures and vibration-sensitive equipment and operations. The level of vibration generated from other construction activities would depend on the type of soils and the energy-generating capability of the construction equipment. According to Caltrans typical construction activities and equipment, such as dozers, earthmovers, and trucks have not exceeded 0.10 in/sec peak particle velocity at 10 feet. Vibration criteria for sensitive equipment and operations must be determined based on manufacturer specifications and recommendations by the equipment user. As a guide, major construction activity within 200 feet may be potentially disruptive to sensitive operations (Caltrans 2002).

No pile driving or blasting, which would potentially generate higher levels of vibration, would be required for implementation of the Phase III project. Phase III project components located near existing commercial or industrial development that would require heavy equipment operation that may be potentially disruptive to vibration-sensitive operations include ES 1, ES 2, ES 5, ES 8, ES 9, and ES 18. As listed in Appendix A, the CMWD has committed to providing advance notice of construction, between two and four weeks prior to construction, to residents or property owners within 300 feet of the alignment. The announcement will state specifically where and when construction will occur in the area. If construction delays of more than 7 days occur, an additional notice will be made, either in person or by mail. Therefore, vibration-sensitive land uses within the vibration screening

distance for major construction activity would receive adequate notification to prepare for potential vibration. Although vibration may be an annoyance to residents, residential development does not include vibration sensitive equipment and is not considered a day-time vibration-sensitive land use. As discussed under Section 4.11.3.2 (Issue 2), construction activities would take place during the day in accordance with the affected cities' noise ordinances. Therefore, construction of the Phase III project would not disturb sleep and would not result in a significant vibration impact to residential development.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than significant. As discussed in Section 12 a), the proposed Phase III project would not generate substantial new operational noise. Therefore, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Impacts would be less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than significant. As discussed in Section 12a), construction of the proposed project would result in temporary increases in noise levels from the operation of construction equipment; however, noise levels would comply with applicable noise ordinances and the CMWD would implement BMPs to minimize noise. Therefore, the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Impacts would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant. McClellan-Palomar Airport is located within Carlsbad. Oceanside Municipal Airport, a public airport, is located in Oceanside. ES 1 would be located within the McClellan-Palomar Airport Influence Area and Flight Activity Zone. However, the Phase III project would construct recycled water infrastructure and do not involve any construction or long-term operational features for human occupancy that would result in regular exposure to aircraft noise from McClellan-Palomar Airport or Oceanside Municipal Airport. Therefore, impacts would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No impact. There are no private airstrips located in the vicinity of the project site. Therefore, the project would not expose people residing or working in the project area to excessive noise levels associated with a private airstrip. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
13. Population and Housing				
Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Explanation:

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

No impact. Implementation of the Phase III project would not directly induce population growth because the project does not propose any new homes or business that would directly attract new growth. Additionally, implementation of the Phase III project would not indirectly induce population growth because the plans have been developed to accommodate projected population growth associated demand for recycled water projects in the 2012 RWMP, which was prepared based on the Carlsbad Growth Management Plan and Growth Database. Therefore, the projected population growth of the region that would be accommodated by the proposed Phase III was based upon existing and planned land use data for the project area. The Phase III would not result in population growth. No impact would occur.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No impact. No housing units would be displaced by the proposed project. Therefore, the project would not necessitate the construction of replacement housing elsewhere. No impact would occur.

c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

No impact. No people would be displaced by the proposed project. Therefore, the project would not necessitate the construction of replacement housing elsewhere. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
14. Public Services				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire Protection?	☐	☐	☐	☒
b) Police Protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Explanation:

a) Fire Protection?

No impact. The Phase III project includes improvements to recycled water facilities, construction or relocation of a storage tank, and installation of new pipelines. The proposed project does not contain any residential uses or any other land uses that would result in an increased demand for fire services. As such, the project would not require the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts. Therefore, no impact would occur.

b) Police Protection?

No impact. The Phase III project includes improvements to recycled water facilities, construction or relocation of a storage tank, and installation of new pipelines. The proposed project does not contain any residential uses or any other land uses that would result in an increased demand for police services. As such, the project would not require the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts. Therefore, no impact would occur.

c) Schools?

No impact. The Phase III project includes improvements to recycled water facilities, construction or relocation of a storage tank, and installation of new pipelines. The proposed project does not contain any residential uses or any other land uses that would result in an increased demand for schools. As such, the project would not require the provision of new or physically altered schools, the construction of which could cause significant environmental impacts. Therefore, no impact would occur.

d) Parks?

No impact. The Phase III project includes improvements to recycled water facilities, construction or relocation of a storage tank, and installation of new pipelines. The proposed project does not contain any residential uses or any other land uses that would result in an increased demand for parks. As such, the project would not require the provision of new or physically altered parks, the construction of which could cause significant environmental impacts. Therefore, no impact would occur.

e) Other Public Facilities?

No impact. The Phase III project includes improvements to recycled water facilities, construction or relocation of a storage tank, and installation of new pipelines. The proposed project does not contain any residential uses or any other land uses that would result in an increased demand for other public services. As such, implementation of the Phase III project would not require the provision of new or physically altered facilities, the construction of which could cause significant environmental impacts. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Explanation:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. The Phase III project includes improvements to the existing facilities, construction or relocation of a storage tank, and installation of new pipelines. The Phase III project does not contain any residential uses or other land uses that would introduce new residents to the area. Therefore, implementation of the Phase III project would not impact the use of parks or other recreational facilities. There would be no impact to recreational facilities, and no further analysis is required. No impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No impact. The project includes improvements to the existing facilities and installation of new pipelines. The project does not contain any residential uses or other land uses that would introduce new residents to the area. Therefore, the project would not require the construction or expansion of new recreational facilities. There would be no impact to recreational facilities, and no further analysis is required. No impact would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
16. Transportation/Traffic				
Would the project:				
a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Explanation:

a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. Construction of the proposed project would generate construction-related trips from trucks hauling soil and/or debris from the construction sites; trucks delivering equipment and materials to/from the construction sites; and construction workers driving to/from the construction sites. These localized increases in construction traffic would be temporary. Construction of the Phase III project would not occur all at once, and would take place throughout the study area so that even simultaneous construction projects would not concentrate traffic on the same roadways. Construction traffic would only affect a limited area immediately surrounding the active construction area for a short time during construction of a particular Phase III project. Construction projects would not be expected to generate an increase in vehicular trips that would degrade the level of service on surrounding roadways to below an acceptable level.

The Phase III project would require the installation of new pipelines (ES 1, ES 2, ES 5, ES 7, ES 8, ES 9, and ES 18) within the public ROW. Staging and storage areas may also be located in a portion of the public ROW. Potential impacts include disruption of traffic from lane closures, detours, increased truck and other construction-related traffic, and disruption of access to local businesses and residences in some cases. These types of impacts may affect local circulation during the short-term course of construction activities. The CMWD will prepare and implement a traffic control plan, as described in the construction measure for Transportation/Traffic listed in Appendix A. Implementation of the traffic control plan would reduce potential impacts during construction to a less than significant level.

Permanent traffic associated with operation of the Phase III project would occur primarily from vehicular trips by employees. However, operation of the project would not generate a significant volume of new vehicle trips. The proposed project components are underground pipelines and improvements to existing facilities. Following construction, the underground pipelines would be passive and would not require regular maintenance. Occasional vehicle trips may be required for repair or inspection, similar to existing pipelines. The CWRF and Twin D tank site currently require vehicle trips for maintenance. The CWRF expansion and new or relocated storage tank would not result in new maintenance vehicle trips. Any incremental increases in maintenance vehicle trips would be distributed on roadways throughout project area and would not be substantial in relation to the existing traffic load and capacity of intersections, street segments and freeways within the study area. Implementation of the proposed Phase III project would not result in long-term impacts to traffic. The project would not degrade the traffic level of service in the study area. Impacts would be less than significant.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than significant. Congestion Management Program (CMP) roadways that serve the City of Carlsbad, and the portion of the City of Oceanside in the project area, include Interstate 5, State Route 78, El Camino Real, Palomar Airport Road, and Rancho Santa Fe Road (SANDAG 2008). Construction of the proposed project would not require construction in any of these CMP roadway ROW, with the exception of El Camino Real. As discussed in Section 16a), the CMWD would implement a traffic control plan to reduce potential impacts to traffic flow during construction to a less than significant level. In addition, operation of the Phase III project would generate a negligible increase in vehicles trips in the area. Any incremental increases in maintenance vehicle trips would be distributed on roadways throughout the project area and would not be substantial in relation to the existing traffic load and capacity of intersections, street segments and freeways within the study area. Therefore, the project would not conflict with the SANDAG CMP. Impacts would be less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No impact. Implementation of the Phase III project would not involve the construction of facilities that would require changes in air traffic patterns from increased traffic levels, location or design. No impact would occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No impact. The Phase III project consists of underground pipelines and improvements to CMWD properties that are developed with existing facilities. The improvements to existing facilities would not be located adjacent to public roadways. Therefore, the project would not substantially increase hazards due to a design feature or incompatible uses. No impact would occur.

e) Result in inadequate emergency access?

Less than significant. Emergency access could be temporarily affected by construction in roadway ROW, which would restrict access the area surrounding the construction sites, but roadways would not be permanently affected by implementation of the Phase III project. Lane closures during construction would have the potential to

result in inadequate emergency access. However, implementation of the traffic control plan described in Appendix A, including coordination with emergency service providers, would ensure that significant impacts would not occur during construction of any of the proposed Phase III project components.

f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Less than significant. Pedestrian and bicycle facilities and public transit could be temporarily affected by construction within roadway ROW, but facilities would not be permanently affected by implementation of the Phase III project. Therefore, the Phase III project would not conflict with policies or programs regarding public transit, bicycle, or pedestrian facilities or otherwise permanently decrease the access, performance, or safety of such facilities. As discussed in Section 16a), lane and sidewalk enclosures during construction would have the potential to decrease the performance or safety of alternative transportation facilities. However, implementation of the traffic control plan would ensure that significant impacts to pedestrian and bicycled facilities would not occur during construction of the proposed Phase III project. Construction of ES 2 in the railroad ROW would be installed using the trenchless jack-and-bore construction method and would not interfere with railroad operation. Therefore, impacts to alternative transportation would be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
17. Utilities and Service Systems				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Explanation:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No impact. Construction of the proposed pipelines would potentially require the dewatering; however, the dewatering effluent would be treated prior to discharge into the City's sanitary sewer system such that the water quality would meet the requirements of the EWPCF and the RWQCB. Operation of the recycled water pipelines, storage tank, and CWRF expansion would not generate wastewater; they would treat and convey treated

wastewater as part of the CMWD's recycled water system. Therefore, the project would not exceed wastewater treatment requirement of the RWQCB. No impact would occur.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No impact. The Phase III project would not require potable water or generate wastewater. In addition, there is no new development associated with the proposed project which would increase potable water demand or wastewater generation. Therefore, the project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities (other than those associated with the proposed Phase III project to treat and convey recycled water). No impact would occur.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No impact. The proposed project is an expansion of the CWRF, construction or relocation of a storage tank, and underground recycled water pipelines; operation of the pipelines, storage tank, and CWRF facilities would not discharge into the storm water drainage system or generate surface runoff. In addition, no new impervious surfaces would be constructed, with the exception of the area where the tank is located. The tank site is previously graded and located on an existing storage facility site. Therefore, the project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. No impact would occur.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than significant. Construction of the proposed project would potentially require the use of water for fugitive dust control and trench compaction. Construction-related water usage would be temporary and limited to relatively small amounts; therefore, sufficient water supplies would be available to serve the project from existing entitlements. Operation of the CWRF expansion and recycled water pipelines would not require use of water. In fact, operation of the Phase III project would reduce existing and future potable water demand by expanding the availability of recycled water. Impacts to water supplies would be less than significant.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than significant. Wastewater discharged to the Carlsbad sanitary sewer system is conveyed to the EWPCF. The EWPCF currently treats approximately 24 million gallons per day of wastewater, and has a treatment capacity of 40.51 million gallons per day (Encina Wastewater Authority 2010, 2012).

Construction of the proposed project would potentially require the discharge of treated dewatering effluent into the Carlsbad sanitary sewer system; however, wastewater generation from dewatering operations would be temporary and limited to small amounts relative to the capacity of the EWPCF. No wastewater would be generated by operations of the Phase III project. Therefore, the EWPCF has adequate capacity to serve the project's projected demand in addition to its existing commitments. Impacts would be less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than significant. Construction-related non-recyclable solid waste generation would be temporary and limited to small amounts relative to the landfill's available capacity and permitted daily throughput; therefore, there would be sufficient landfill capacity to accommodate the project's solid waste disposal needs. Moreover, the long-term operations of proposed pipelines, storage tank, and CWRF facilities would not generate solid waste that would impact the permitted capacity of area landfills. Operation of the pipelines and storage tank would not

generate solid waste. The only waste that would be generated by the CWRF would be disposal of filters and other equipment at the end of its lifespan. Products would be disposed of in accordance with federal, state and local laws and regulations and would not impact local landfill capacity. Impacts to landfills would be less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than significant. As discussed in Section 8a), all demolition debris and construction waste associated with construction of the Phase III project would be properly handled and disposed of, in accordance with federal, state and local laws and regulations related to solid and hazardous waste. Disposal of CWRF equipment at the end of its lifespan would also be disposed of in accordance with federal, state and local laws and regulations. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
18. Mandatory Findings of Significance				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Explanation:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than significant with mitigation. Refer to Sections 4 a), 4 b), and 4 c) above with regard to biological resources. The proposed project would not result in any direct impacts to sensitive species, sensitive habitats, or wetlands. However, construction activities associated with project components ES 1, 2, 5, 8 and 9 could result in potential runoff that could affect wetlands or other sensitive natural communities, and inadvertent intrusions of construction equipment and personnel into sensitive natural communities adjacent to construction zones. Mitigation measures Bio-1A through Bio-1F would be implemented to ensure that the proposed project would not result in significant indirect impacts to sensitive species, sensitive habitat, or wetland.

In addition, refer to Sections 5 a) and 5 b), above, with regard to cultural resources. The proposed project would not eliminate important examples of the major periods of California history or prehistory. The Phase III project would be located in existing facilities or existing roadways. If unknown archaeological resources are discovered

during project construction, the CMWD has committed to a design feature to protect potentially significant resource that would reduce archaeological impacts associated with project construction to below a level of significance.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than significant. The cumulative impact analysis determines whether the proposed project's incremental effects would be "cumulatively considerable" when viewed in connection with the effects of past, present, or probable future projects. A cumulative impact is not considered significant if the effect would be essentially the same whether or not the proposed project is implemented. In discussing the cumulative impacts, one question and a possible follow-up question will be answered for each environmental topic:

1. Overall, will there be a significant cumulative impact?

2. If it is determined that a significant cumulative impact exists, would the proposed project's contribution to this significant impact be cumulatively considerable?

The following discussion of cumulative impacts is organized by each environmental topic addressed in Sections 1 – 17 of this Initial Study. The 2012 Master Plans EIR included an analysis of the potential cumulative impacts of the Phase III project, in combination with the remaining RWMP CIP Projects, the 2012 Sewer and Water Master Plan Projects, and cumulative development in the CMWD services area. This analysis is incorporated by reference, and is summarized below as it pertains to the Phase III project. The following environmental topics are not discussed any further in this section because the proposed project would have no direct impact related to these issues: Agricultural and Forestry Resources, Mineral Resources, Population and Housing, Public Services, and Recreation.

Aesthetics. The area of influence for cumulative impacts to aesthetics is limited to the project site and its immediate surroundings. The proposed project is located in existing roadway ROW and existing facilities in developed areas. However, some areas of open space existing along proposed alignments. Consistent with the Master Plans EIR, as Carlsbad continues to develop, the appearance of the project area will continue to change from undeveloped to a more built-out, urbanized landscape. Therefore, the baseline cumulative impact to aesthetics is significant. However, following construction, the Phase III project would be located underground or within existing CMWD sites containing similar infrastructure. A substantial permanent visual impact would not occur as a result of the Phase III project. The Phase III project would not result in cumulatively considerable contribution to a potentially significant cumulative aesthetic impact.

Air Quality. Refer to Section 3c) for a discussion of cumulative air quality impacts. As discussed in Section 3c), construction of the proposed project would not result in a cumulatively considerable contribution to a significant air quality impact related to ozone precursors or particulate matter.

Biological Resources. The area of influence for cumulative impacts to biological resources would encompass areas contained within the planning boundaries for the Carlsbad HMP. Development projects within the cumulative setting of the Carlsbad HMP would have the potential to contribute to cumulative direct and indirect impacts to sensitive species and natural communities, including wetlands. Therefore, the baseline cumulative impact to sensitive biological resources within and adjacent to the proposed project (i.e., regional cumulative impact area) is significant. Since the adoption of the Carlsbad HMP, project-level and cumulative impacts for development projects within the city have been mitigated to levels of less than significant. One of the many benefits of a regional habitat conservation plan, such as the Carlsbad HMP, is that the cumulative effects of growth are mitigated by establishing a process that preserves the most important biological resources in the region. Since its adoption, implementation of the Carlsbad HMP has resulted in the conservation and preservation of lands supporting the highest quality and value habitat within the city. These preserve lands support special status species, sensitive natural communities, wetlands, and other regionally important biological resources. The

preservation of this habitat has allowed for development within the city to occur without contributing substantially to a cumulative impact.

As discussed above within Section 4, construction of some project components would have the potential to indirectly impact off-site undeveloped areas potentially supporting special-status wildlife species, sensitive natural communities, and habitat supporting wetlands. The magnitude of potential impacts is anticipated to be relatively low due to the small size of the project components and temporary nature of proposed activities. All sensitive habitat areas would be avoided and the project would incorporate adequate setbacks and protection measures to restrict construction activities within disturbed and developed areas. Potential runoff and increase in pollutants associated with construction activities adjacent to undeveloped areas would be controlled and reduced through compliance with the proposed project features, Storm Water General Permit, General Linear Utility Permit, and local development standards, including the preparation of a SWPPP and implementation of applicable BMPs. In addition, the CMWD is required to adhere to the provisions of the HPMR Ordinance and Carlsbad HMP protecting sensitive biological resources within the city. Through consistency with the Carlsbad HMP and implementation of mitigation measures Bio-1A through Bio-1F, the proposed project would not result in a cumulatively considerable contribution toward impacts on special status species within the regional cumulative impact area.

Cultural Resources. The area of influence for cumulative impacts to cultural resources is defined as the areas served by the CMWD, which includes approximately 40-square miles of land with a similar archaeological, ethnohistoric, and historic setting as the individual Phase III project sites. The geographic context for the analysis of cumulative impacts to paleontological resources encompasses the paleontologically sensitive geologic formation within the project area, which is the Santiago Formation. Ground disturbance (e.g., grading, trenching, excavation) associated with implementation of cumulative projects could have significant impacts on archaeological, historical, and paleontological resources. Therefore, the baseline cumulative impact to cultural resources due to future development within the planning area (i.e., regional cumulative impact area) is significant.

As discussed in Section 5 above, implementation of the project would have a less than significant impact on historical resources, known archeological resources, or paleontological resources. The CMWD has committed to a protocol for the accidental discovery of unknown archeological resources that, if resources are discovered, would reduce impacts to a less than significant level. Therefore, construction associated with the Phase III project would not result in a cumulatively considerable contribution to the loss of archaeological or historical resources within the regional cumulative impact area.

Geology and Soils. The area of influence for cumulative impacts associated with geology and soils is generally site-specific rather than cumulative in nature because each site has unique geologic consideration that would be subject to uniform site development and construction standards. The structural design for all of the cumulative projects, as well as their associated construction activities, would be required to comply with all applicable public health, safety, and building design codes and regulations to reduce seismic and geologic hazards to an acceptable level. Therefore, because compliance with all applicable codes and regulations is required for all cumulative projects, a significant cumulative impact associated with geology and soils would not occur, and an analysis of the proposed project's incremental contribution to a significant cumulative impact is not required.

Greenhouse Gas Emissions. Refer to Section 7 a) for a discussion of cumulative GHG emissions impacts. Due to the global nature of the assessment of GHG emissions and the effects of climate change, impacts can currently only be analyzed from a cumulative context. Therefore, the analysis provided in Section 7 a) includes both project-specific and cumulative impacts. As discussed in Section 7 a), construction of the Phase III project would not result in a cumulatively considerable contribution to a significant global climate change impact related to GHG emissions.

Hazards and Hazardous Materials. The area of influence for cumulative impacts associated with hazards and hazardous materials is site-specific, and therefore limited to the project site and its immediate surroundings. Due to historical releases in the area, contaminated soils and groundwater are likely to be encountered during construction of the proposed project and nearby cumulative projects, which would potentially expose the public and the environment to hazardous materials. This represents a potentially significant cumulative impact; however, implementation of mitigation measure Haz-1 and Haz-2 would mitigate the Phase III project's direct and

cumulative impacts to a less than significant level. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with hazardous materials.

Hydrology and Water Quality. The area of influence for cumulative impacts to hydrology and water quality is defined as the project site and the portions of the Carlsbad watershed directly downstream from the Phase III project locations.

Water Quality. Even with the promulgation of storm water regulations, land disturbance and development activities throughout the Carlsbad watershed continue to contribute to the overall water quality problems observed in runoff flows that discharge into watercourses, lagoons, and eventually the Pacific Ocean. Water bodies in the Carlsbad Watershed have been placed on the Clean Water Act 303(d) list of impaired water bodies. Therefore, the baseline cumulative impact pertaining to water quality is significant. As discussed above in Section 9, the Phase III project would comply with the General Linear Utility Permit and all other applicable storm water requirements, which would ensure that the proposed project would not contribute to the further degradation of water quality. Following construction, the Phase III project would not result in new sources of pollutants and would not result in a change to the existing site drainage pattern. Therefore, construction and operation activities associated with the Phase III project would not result in a cumulatively considerable contribution to the cumulatively significant increase in downstream water pollution effects within the regional area.

Hydrology. Land disturbance and development activities throughout the local and basins continue to contribute to the overall surface quality and flooding problems in the project area and in the downstream watercourses and lagoons leading to the Pacific Ocean. Therefore, the baseline cumulative impact to the Carlsbad watershed due to water quality and flooding effects from discharges of storm water associated with alterations of drainage patterns is significant. As discussed in Section 9) above, the Phase III project would not result in permanent impacts to existing drainage patterns and would comply with all applicable storm water requirements during construction, which would reduce impacts related to drainage alteration, flooding, and exceedance of capacity of storm water drainage facilities to a level below significance. The Phase III would not result in a cumulatively considerable contribution to the cumulatively significant regional alteration of drainage patterns.

Land Use and Planning. Impacts related to consistency with land use plans and policies, and physical division of an established community, are project-specific and not cumulative in nature. It is anticipated that development of future cumulative projects in the vicinity of the Phase III project would undergo CEQA review which would require a consistency analysis with applicable plans and polices. As required by CEQA, cumulative projects would be consistent with the existing adopted plans, or require mitigation measures or design review to ensure consistency As discussed in Section 10) above, implementation of the Phase III Project would not result in new land uses that would be incompatible with surrounding land uses and would not physically divide an established community. Therefore, the Phase III project, in combination with cumulative projects, would not result in a cumulatively significant impact associated with land use and planning.

Noise. Noise, by definition, is a localized phenomenon and is progressively reduced as the distance from the source increases. The area of cumulative impact would be only those projects within the immediate vicinity of the Phase III project. Construction of cumulative development projects is not likely to result a substantial temporary increase in ambient noise levels due to the localized nature of noise impacts, and construction projects would not occur simultaneously or at the same location. In addition, construction noise for cumulative projects would be subject to the noise standards within the appropriate jurisdiction. As discussed in Section 10), the Phase III project would comply with applicable local noise ordinances and regulations that limit construction hours, and construction of the Phase III project would implement best management practices to minimize construction noise. The Phase III project, in combination with cumulative projects, would not result in cumulatively significant increases in temporary noise levels.

Potential operational noise impacts from cumulative projects would be required to comply with the noise standards for the jurisdiction that they are located in. As discussed in Section 10a), maintenance for the Phase III project may require occasional vehicle trips for maintenance. Due to the minimal number and the geographic distribution of vehicular trips associated with the maintenance of the projects, transportation noise increases, in

comparison to existing conditions, would not be perceptible. In addition, operational noise sources from pipelines and the storage tank would be negligible once constructed since these are passive facilities. The CWRF expansion equipment would be enclosed and would not increase noise levels existing noise generated on-site from pumps and other equipment. The Phase III, in combination with other cumulative projects, would not result in a cumulatively significant increase in permanent ambient noise levels.

Transportation/Traffic. The area of influence for cumulative impacts to transportation/traffic is limited to the roadways that would be impacted by the proposed project during construction. It is possible that one or more of the cumulative projects located in close proximity would be constructed concurrently with the proposed project, which could result in a cumulative short-term impact to traffic conditions on these roadways. However, implementation of a traffic control plan, as discussed in Section 16a) would mitigate the project's direct and cumulative traffic impacts to a less than significant level by ensuring that adequate vehicle, pedestrian and bicycle access is maintained during construction. Following construction, operation of the Phase III project would result in a negligible amount of new traffic and would not result in a permanent impact to the regional transportation network.

Utilities and Service Systems. The area of influence for cumulative impacts to utilities and service systems is defined as the City of Carlsbad and the project area. The City and CMWD are responsible for providing adequate utilities and service systems infrastructure to serve future growth that would be accommodated by the City of Carlsbad General Plan, and the portions of adjacent jurisdictions within the project area. If growth would not occur concurrently with installation of utilities and service system infrastructure to meet demand, a significant cumulative impact would occur. However, the proposed project would expand the CMWD's recycled water availability meet the projected future demand of the currently adopted planning documents, and would also reduce future demand for potable water. Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to a significant utilities and service systems impact.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than significant with mitigation. The proposed project would result in potentially substantial adverse effects to human beings related to impacts on natural habitat and exposure to hazardous materials. However, potential impacts associated with the project (e.g. biological resources and hazards and hazardous materials) would either be less than significant or mitigated to below a level of significance with the implementation of mitigation measures Bio-1A through Bio-1F, Haz-1, and Haz-2. These mitigation measures are described in Sections 1 – 17 of the Initial Study and included in the Mitigation Monitoring and Reporting Program prepared for the project.

Earlier Analyses

Earlier analyses may be used where, pursuant to the program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case a discussion should identify the following:

a) Earlier analyses used. Identify earlier analyses and state where they are available for review.

This analysis incorporates by reference the Draft EIR for the City of Carlsbad Sewer Master Plan and CMWD Water and Recycled Water Master Plans (Master Plans) Update (SCH #2012021006, EIR 12-01). The Draft EIR addresses the potential physical environmental impacts that would result from implementation of the proposed Sewer, Water, and Recycled Water Master Plan CIP Projects, including the CWRF expansion, relocation or construction of a new storage tank, and Expansion Segments 1, 2, 4A, 5, 7, 8, 9, and 18. This Initial Study also uses the information included in the previous Initial Study and Environmental Checklist prepared for the Encina Basin Water Reclamation Program Phase II Project in December 1999, which included construction of the existing CWRF. Each of these prior certified environmental documents are herein incorporated by reference. All referenced documents are available for review at the City of Carlsbad, 1635 Faraday Avenue, Carlsbad, California, 92008.

b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

All of the checklist items were addressed above for the Phase III project based on the analysis in the 2012 Master Plans EIR. Where appropriate, the EIR analysis was updated to reflect project-specific conditions.

c) Mitigation measures. For effects that are "Less Than Significant with Mitigation Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

Mitigation measures Bio-1A through Bio-1F are based on mitigation measures Bio-1A through Bio-1F from the 2012 Master Plans EIR. These measures were slightly modified to be project-specific.

Supporting Information Sources

AMEC Earth and Environmental, Inc., Conservation Biology Institute, Onaka Planning and Economics, and The Rick Alexander Company. 2003. Final Multiple Habitat Conservation Program. Administered by SANDAG for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. March. Available at http://www.sandag.org/index.asp?projectid=97&fuseaction=projects.detail

Atkins. 2012a. City of Carlsbad Sewer Master Plan and Carlsbad Municipal Water District Water and Recycled Water Master Plans Update Draft Program Environmental Impact Report. SCH No. 2012021006. Available on-file at the City of Carlsbad.

Atkins. 2012b. California Historical Resources Information System Client In-House Records Search, South Coastal Information Center. January 30.

Burwasser, G. 2010, Paleontological Resources Evaluation of Vallecitos Water District, San Diego County, California, October 28.

California Climate Action Registry. 2009. General Report Protocol, Version 3.1. January.

California Department of Conservation (DOC), Division of Land Resource Protection. 2010. Farmland Mapping and Monitoring Program – San Diego County Important Farmland 2008. October.

California Department of Conservation (DOC), Division of Land Resource Protection. 2009. Williamson Act Program – San Diego County Williamson Act Lands 2008. April 16.

California Department of Fish and Game (CDFG). 2012a. Biogeographic Data Branch, California Natural Diversity Database (CNDDB), RareFind Version 3.1.0. August 2012 data.

California Department of Fish and Game (CDFG). 2012b. State and Federally Listed Endangered, Threatened, and Rare Plants of California. California Department of Fish and Game, Natural Diversity Data Base. Sacramento, California. January.

California Department of Fish and Game (CDFG). 2012c. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Game, Natural Diversity Data Base. Sacramento, California. January.

California Department of Fish and Game (CDFG). 2012d. Special Animals. California Department of Fish and Game, Natural Diversity Database. Sacramento, California. January.

California Department of Forestry and Fire Protection (CDF). 2003. The Changing California: Forest and Range 2003 Assessment, Land Cover Map. Accessed January 25, 2011, available at http://frap.cdf.ca.gov/webdata/maps/statewide/fvegwhr13_map.pdf

California Department of Forestry and Fire Protection. 2009. Fire and Resource Assessment Program, Very High Fire Hazard Severity Zones in Local Responsibility Area. June 11.

California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (v7-12aug 8-10-12). Data provided by the participants of CNPS. Accessed August 22, 2012, available at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi

City of Carlsbad. 1996. City of Carlsbad Local Coastal Program and 2000, 2002, 2003, 2006, and 2010 Amendments. August 14. On-file at the City of Carlsbad and available at http://www.carlsbadca.gov/services/departments/planning/Documents/LCPA.pdf

City of Carlsbad. 1997. Vegetation Community Data Provided by City of Carlsbad GIS. Data available at the City of Carlsbad.

City of Carlsbad. 2003. Final Program Environmental Impact Report for the Water and Sewer Master Plans Updates. SCH #2003051014. October. Available on-file at the City of Carlsbad.

City of Carlsbad. 2004. Final Habitat Management Plan for Natural Communities in the City of Carlsbad. Final approval November 2004, including implementing agreement and terms and conditions. Available at http://www.sandag.org/uploads/publicationid/publicationid_149_579.pdf

City of Carlsbad. 2011a. Revised Vegetation Community Data Provided by City of Carlsbad GIS. Data available at the City of Carlsbad.

City of Carlsbad. 2011b. Carlsbad Municipal Code. October 25. Available at http://library.municode.com/index.aspx?clientID=16245&stateid=9&statename=California

City of Carlsbad. 2011c. SDGE Energy FY 07/08 With Facility ID, Cost, and Usage. Provided by Elzbieta Karczewski on December 6, 2011.

City of Oceanside. 2002. City of Oceanside General Plan, Environmental Resource Management Element. June.

City of Vista. 2011. Vista General Plan 2030 Final Program Environmental Impact Report (SCH #2009121028). December.

County of San Diego (County). 2009. San Diego County General Plan Update Draft Environmental Impact Report. SCH#2002111067.

County of San Diego, Land Use and Environment Group. 2009. County of San Diego Guidelines for Determining Significance – Paleontological Resources. January 15.

County of San Diego, Department of Planning and Land Use. 2012. Draft County of San Diego Guidelines for Determining Significance. June 20.

Department of Conservation, Division of Land Resource Protection. 2008. Farmland Mapping and Monitoring Program – San Diego County Important Farmland 2006. August.

Dudek. 2003. Final Program Environmental Impact Report for the Water and Sewer Master Plans Updates. SCH #2003051014. October.

Federal Highway Administration (FHWA). 2006. Construction Noise Handbook. August.

Kennedy, M.P., and S.S. Tan. 2002. Geologic Map of the Oceanside 30' X 60' Quadrangle, California. California Geologic Survey, Sacramento.

Nett Technologies Inc. 2010. Diesel Emissions FAQ: What are diesel emissions? Accessed January 5, 2011, available at http://www.nett.ca/faq/diesel-1.html

San Diego Air Pollution Control District (SDAPCD). 2009. 2009 Regional Air Quality Strategy Revision. April 22, 2009. Accessed November 3, 2010, available at http://www.sdapcd.org/planning/2009-RAQS.pdf

San Diego Air Pollution Control District (SDAPCD). 2011. 2010 Air Toxics "Hot Spots" Program Report for San Diego County. September 28.

San Diego Association of Governments (SANDAG). 2008. Final 2008 Congestion Management Program Update. November.

San Diego County Regional Airport Authority. 2004. Airport Land Use Compatibility Plan, McClellan-Palomar Airport, Carlsbad, California. October 4.

U.S. Fish and Wildlife Service (USFWS). 2012a. Critical Habitat Portal. Available at http://criticalhabitat.fws.gov/

U.S. Fish and Wildlife Service (USFWS). 2012b. National Wetlands Inventory. Available at http://www.fws.gov/wetlands

U.S. Fish and Wildlife Service (USFWS). 2012c. Species Status Page. Available at http://www.fws.gov/carlsbad/SpeciesStatusList/CFWO_Species_Status_List.htm

Biological Resource Database and Literature Review

The following provides a summarized list of the primary resources consulted for the preparation of the biological resource analysis.

Databases

California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB; CDFG 2012a);

California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2012);

U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2012a); and

USFWS National Wetlands Inventory Wetlands Mapper (USFWS 2012b).

Literature Review

City of Carlsbad Sewer Master Plan and Carlsbad Municipal Water District Water and Recycled Water Master Plans Update Draft Program Environmental Impact Report (Atkins 2012a);

Final Carlsbad Multiple Habitat Conservation Program (MHCP) Subarea Plan, herein referred to as the "Carlsbad Habitat Management Plan (HMP)", including regional mapping data for vegetation communities and conservation areas (City of Carlsbad 1997, 2004, 2011a);

Final MHCP Plan (AMEC et al. 2003);

CDFG State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFG 2012b);

CDFG Special Vascular Plants, Bryophytes, and Lichens List (CDFG 2012c);

CDFG Special Animals List (CDFG 2012d); and

USFWS Species Lists for San Diego County (USFWS 2012c).

List of Mitigating Measures

To mitigate potentially significant project impacts, the following mitigation measures shall be applied to the development of the proposed project.

Biological Resources

Bio-1A **Avoidance of Nesting Birds and Raptors.** To prevent impacts to nesting birds, including raptors, protected under the federal MBTA and CDFG Code, the CMWD shall enforce the following:

Prior to removal or damage of any active nests or any tree pruning or removal operations during the prime nesting seasons, that being from March 15 to May 30, a qualified biologist shall survey the trees to determine if there are any active nests within 500 feet of the area of tree removal or pruning. If any active nests are located within 500 feet, no tree pruning or removal operations can occur until the nests are vacated or until the end of the prime breeding season, whichever occurs later. In addition, prior to any tree removal or pruning operations proposed outside of the prime nesting season but within the period of January 15 to September 15, a qualified biologist shall confirm in writing that no disturbance to active nests or nesting activities would occur. Documentation from a qualified biologist consistent with these requirements shall be submitted to the City Planner for review and approval. A note to this effect shall be placed on the construction plans.

Bio-1B **Pre-Construction Biological Resource Surveys**. Prior to construction of project components ES 1, 2, 5, 8, and 9 that will occur within disturbed or developed land, but are sited immediately adjacent to an undeveloped open space area (i.e., an area supporting naturalized habitat, sensitive habitat, and/or habitat potentially suitable for special status species), the CMWD shall retain a qualified biologist to perform a pre-construction survey to verify existing biological resources adjacent to the project construction areas. The CMWD shall provide the biologist with a copy of the project plans that clearly depict the construction work limits, including construction staging and storage areas, in order to determine which specific portion(s) of the project will require inspection of adjacent open space areas during the pre-construction survey. At minimum, the biologist shall perform a visual inspection of the adjacent open space area in order to characterize the existing habitat types and determine the likelihood for special status species to occur, including the coastal California gnatcatcher (*Polioptila californica californica*), migratory songbirds, and other bird species with the potential to breed in the area. The pre-construction survey results shall be submitted to the CMWD prior to construction in order to verify the need for additional construction measures proposed within Bio-1C through Bio-1F.

Bio-1C **Orange Construction Fencing**. If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall retain a qualified biologist to supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction, and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied and mitigation identified. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the City Planner prior to and concurrent with construction.

Bio-1D **Construction-Related Noise**. Construction noise created during the general breeding season (January 15 to September 15) that could affect the breeding of the coastal California gnatcatcher, migratory songbirds, and other bird species associated with adjacent undeveloped areas shall be avoided. No loud construction noise (exceeding 60 dBA hourly average, adjusted for ambient noise levels, at the nesting site) may take place within 500 feet of active nesting sites during the general breeding season (January 15 through September 15).

If it is confirmed through the implementation of mitigation measure Bio-1B that the project could result in construction-related noise impacts to breeding birds during the general breeding season, the CMWD shall retain a qualified biologist to monitor the construction operations. The biological monitor shall be present to monitor construction activities that occur adjacent to the undeveloped open space area potentially supporting breeding birds. The monitor shall verify that construction noise levels do not

exceed 60 dBA hourly average and shall have the ability to halt construction work, if necessary, and confer with the City Planner, USFWS, and CDFG to ensure the proper implementation of additional protection measures during construction. The biologist shall report any violation to the USFWS and/or CDFG within 24 hours of its occurrence.

Bio-1E **Construction Staging Areas**. If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall design final project construction staging areas such that no staging areas shall be located within sensitive habitat areas. The construction contractor shall receive approval by the City Planning & Engineering Divisions prior to mobilizations and staging of equipment outside of the project boundaries.

Bio-1F **Contractor Training.** If it is confirmed through the implementation of mitigation measure Bio-1B that the project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the CMWD shall retain a qualified biologist to attend pre-construction meetings to inform construction crews of the sensitive resources and associated avoidance and/or minimization requirements.

Hazards and Hazardous Materials

Haz-1 **Excavation Monitoring.** During excavation activities for ES 2, ES 5, ES 8, ES 9, and ES 18, CMWD shall provide monitoring by an individual licensed in the State of California to assess soil conditions for the potential presence of contaminated soils. In the event of encountering hydrocarbon contaminated soils, these soils shall be properly tested, managed, and disposed of at a licensed facility in accordance with DEH requirements.

Haz-2 **Construction Worker Health and Safety Work Plan.** Prior to construction of ES 2, ES 5, ES 8, ES 9, or ES 18, CMWD shall have a project-specific health and safety work plan prepared and distributed to the construction workers to address the potential exposure to hazardous materials associated with working with or near contaminated soil. This work plan shall comply with all County of San Diego DEH work plan requirements including Community Health and Safety Planning to address physical hazards, site security, management of soil and water, and monitoring equipment. A description of engineering controls and measures that would be put in place to prevent and/or reduce the risks posed to site workers, public and the environment in the unlikely event of excavating contaminated soil from the construction area shall be provided in the work plan and submitted to the DEH for approval. The engineering controls and measures to be implemented if potentially contaminated soil is uncovered shall include, but not be limited to the following:

1) An exclusion zone and support zone shall be established prior to start and during excavation activities. No unauthorized personnel shall be allowed in these zones. Personnel authorized to work in these zones shall have the required training and qualifications including OSHA HAZWOPER training.
2) Written notifications shall be posted on the perimeter fencing in advance of start of excavation to notify the general public and hotel staff/operators of the nature and duration of work activities. The postings shall also include emergency contact names and telephone numbers.
3) No eating, drinking or smoking shall be allowed within the exclusion or support zones.
4) Site workers shall be required to wear personal protective equipment including gloves, dust masks or respirators, hard hats, steel toed boots, Tyvek® protective clothing, eye shield and ear plugs or ear muffs.
5) A decontamination zone shall be established for site workers to use prior to exiting the exclusion zone.

6) All excavated soil shall be underlain and covered by plastic or Visqueen™ ,if stored on site, to prevent or reduce off-gassing into the atmosphere and to protect the stockpile from erosion due to storm runoff. If on-site temporary storage becomes necessary, the stockpiles shall be placed downwind downstream of any sensitive receptors in the area.

7) All work shall stop if ambient air concentrations exceed acceptable thresholds as approved by the San Diego County DEH, and excavation shall be backfilled with inert soil or other material until concentration drop back to normal.

8) Exposure to dust and potential inhalation hazards shall be controlled by lightly spraying the excavated materials with clean water as they are stockpiled on site or as they are transferred to trucks for shipment offsite. A dust monitor shall be used on site to measure airborne dust during activities that are expected to generate dust. If dust levels exceed permissible exposure levels as set by OSHA standards, additional measures for dust control such as the use of industrial non-toxic dust suppressants shall be implemented.

9) Runoff around the excavation site shall be controlled by placing fiber rolls or other similar types of erosion and runoff control means to direct surface runoff and to protect the nearby downstream storm drains.

10) Vehicular and pedestrian traffic shall be directed away from the construction zone prior to and during excavation and follow-on activities in accordance with a traffic plan approved by the City of San Diego or City of Oceanside, as applicable, and in coordination with CMWD.

Applicant Concurrence with Mitigation Measures

This is to certify that I have reviewed the above mitigating measures and concur with the addition of these measures to the project.

Signed William E. Plummer Date 09/13/2012

Printed Name William E. Plummer

This page intentionally left blank.

Appendix A
Regulatory Compliance and Project Design and Construction Features

Regulatory Compliance

Construction and operation of the Phase III project would be conducted in compliance with all applicable federal, state, and local laws and regulations, including a variety of environmental laws and regulations pertaining to various environmental topics, such as the following.

Air Quality

During construction activities for proposed project components, CMWD would comply with San Diego Air Pollution Control District Rule 55, Fugitive Dust Control. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period; and
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of effective trackout/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks.

Biological Resources

Prior to construction activities for projects located within the boundaries of the city, and where it has been demonstrated that the project could result in impacts to biological resources addressed in the Carlsbad Habitat Management Plan (HMP) for Natural Communities, including HMP Species, Narrow Endemic Species, HMP Habitats, Existing and Proposed HMP Hardline Preserve Areas, Special Resource Areas, and HMP Core and Linkage Areas, as defined in the HMP, the CMWD would demonstrate how implementation of the project would comply with the requirements of the HMP, including the established conservation goals and objectives of the HMP, and the avoidance, minimization, and mitigation measures identified for protected resources. The City would use its land-use regulatory authority to fully implement the provisions of the HMP during project review, and would follow the project processing implementation procedures as required by Carlsbad Municipal Code Chapter 21.210, Habitat Preservation and Management Requirements.

Cultural Resources

During construction activities, CMWD would comply with Public Resources Code Section 5097.98 and California State Health and Safety Code 7050.5, upon unintentional discovery or disturbance of human remains. California State Health and Safety Code Section 7050.5 dictates that no further disturbance will occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined by the County Coroner to be Native American, the Native American Heritage Commission (NAHC) will be notified within 24 hours, and the guidelines of the NAHC will be met in the treatment and disposition of the remains. A professional archaeologist with Native American burial experience will conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist will be retained by CMWD to provide technical assistance to the MLD, including but not limited to, the excavation and removal of the human remains.

Geology

The design of the project components would implement the relevant requirements of the Uniform Building Code (UBC), the California Building Code (CBC), and the Standards and Specifications for Public Works Construction, as updated or amended, and California Department of Mines and Geology's Special Publications 117, "Guidelines for Evaluating and Mitigating Seismic Hazards in California." The CBC provides a minimum seismic standard for certain building designs. Chapter 23 of the CBC contains specific requirements for seismic safety. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 70 of the CBC regulates grading activities, including drainage and erosion control. In addition, construction activities are subject to federal and state occupational safety standards for excavation, shoring, and trenching as specified in California Occupational Safety and Health Administration regulations (Title 8 of the California Code of Regulations [CCR]) and in Section A33 of the CBC. California Department of Mines and Geology's Special Publications 117, "Guidelines for Evaluating and Mitigating Seismic Hazards in California," provides guidance for the evaluation and mitigation of earthquake-related hazards for project components within designated zones of required investigations.

Hydrology and Water Quality

Construction activities would comply with the federal Clean Water Act (CWA), California's Porter-Cologne Water Quality Control Act, the implementing regulations of the State Water Resources Control Board (SWRCB) and RWQCB, and the National Pollutant Discharge Elimination System (NPDES) Program. In accordance with the CWA and the NPDES program, the SWRCB adopted the California General Permit for Discharge of Storm Water Associated with Construction Activity, Construction General Permit Order 2009-0009 DWQ (General Permit) and the RWQCB has issued an NPDES/Waste Discharge Requirement for Municipal Separate Storm Sewer Systems (MS4s) under Order No. R9-2007-0001, NPDES No. CAS0108758, Waste Discharge Requirements for Discharges of Urban Runoff from the MS4s Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority (MS4 permit). Project components not falling within the triggering coverage thresholds of the General Permit would be subject to compliance with the implementing ordinances of the county and cities bound by the MS4 permit to enforce storm water discharge controls required under the MS4 permit. For Phase III project covered under the General Permit (e.g., generally for projects resulting in ground disturbance of greater than one acre), the CMWD would submit a Notice of Intent to be covered under the terms and conditions of the General Permit, prepare a Storm Water Pollution Prevention Plan prescribing Best Management Practices (BMPs), monitoring, inspection, and recordkeeping requirements in accordance with the General Permit provisions, in order to control storm water discharge rates, reduce erosion, and reduce the occurrence of pollutants in surface water runoff. The implementing ordinances of the cities and county under the MS4 permit generally require that storm water control measures of a similar nature be undertaken to ensure their compliance under the permit. BMPs (e.g., berms, straw waddles, silt fencing, swales, and percolation basins) are storm water control measures intended to control the rate of discharge and to prevent pollutants from entering storm water runoff, and may include measures to minimize project disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff, such as the following:

Minimizing disturbed areas. Clearing of land is limited to that which will be actively under construction in the near term, new land disturbance during the rainy season is minimized, and disturbance to sensitive areas or areas that would not be affected by construction is minimized.

Stabilizing disturbed areas. Temporary stabilization of disturbed soils is provided whenever active construction is not occurring on a portion of the site, and permanent stabilization is provided by finish grading and permanent landscaping.

Protecting slopes and channels. Outside of the approved grading plan area, disturbance of natural channels is avoided, slopes and crossings are stabilized, and runoff velocity caused by the project is managed to avoid erosion to slopes and channels.

Controlling the site perimeter. Upstream runoff is diverted around or safely conveyed through the project components and is kept free of excessive sediment and other constituents.

Controlling internal erosion. Sediment-laden waters from disturbed, active areas within the site are detained (e.g., siltation basins).

Hazards and Hazardous Materials

Construction and operation of the project components would be conducted in compliance with all applicable federal, state, and local laws and regulations governing the use, management, handling, storage, release reporting and response actions, transportation, treatment, and disposal of hazardous materials, hazardous substances, and hazardous waste. These laws include:

U.S. Resource Conservation and Recovery Act (42 U.S.C. Section 6901 et seq.), which provides the 'cradle to grave' regulation of hazardous wastes; the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. Section 9601 et seq.), commonly known as the "superfund" law addressing remediation of contaminated sites.

U.S. Hazardous Materials Transportation Act (49 U.S.C. Section 5101 et seq.), which governs hazardous materials transportation on U.S. roadways.

California Hazardous Waste Control Law (Health and Safety Code Section 25100 et seq.) and Hazardous Substances Account Act (Health and Safety Code Sections 25300 et seq.).

California Proposition 65, formally known as "The Safe Drinking Water and Toxic Enforcement Act of 1986" (Health and Safety Code, Chapter 6.6, Sections 25249.5 through 25249.13), requiring persons and entities doing business in California using specific listed chemicals known to the state to cause cancer or reproductive harm or birth defects to provide a clear and reasonable warning to individuals entering the site regarding the presence of such chemicals, and the implementing regulations for such laws.

County of San Diego Consolidated Fire Code, which regulates the use, handling, and storage requirements for hazardous materials at fixed facilities.

During construction, these laws govern the manner in which hazardous materials may be transported, used, stored, and disposed of as well as the handling and disposal of demolition debris containing hazardous waste. During operations, these laws govern the use, management, storage, and transportation of hazardous materials and the management, handling, storage, transportation and disposal of hazardous wastes.

Table 1 Federal, State, or Local Permits and Approvals

Agency/Department	Permit/Approval	Action Associated With or Required For
State Agencies		
State Water Resources Control Board, Regional Water Quality Control Board	General Construction Activity Storm Water Permit SWRCB Order No. 2009-0009 DWQ	Storm Water discharges associated with construction activity.
	Waste Discharge Requirements (Water Code 13000 et seq.)	Discharge of waste that might affect groundwater or surface water (point/nonpoint-source) quality.
California Coastal Commission	Coastal Development Permit	Required for projects located within a deferred certification area in the coastal zone.
Local Agencies		
City of Vista	Encroachment Permit	Required for construction within city ROW.
	Conformity with Zoning	Required for construction within city ROW.
City of Carlsbad	Encroachment Permit	Required for construction within city ROW.
	Discretionary Permit	Required for construction activities within the city requiring discretionary approval.
	Habitat Management Plan Take Permit	Required for potential impacts to sensitive species or habitats covered by the Carlsbad Habitat Management Plan.
	Coastal Development Permit	Required for projects located within a coastal zone.
City of Oceanside	Encroachment Permit	Required for construction within city ROW.
	Conformity with Zoning	Required for construction within city ROW.

Project Design and Construction Features

The CMWD has incorporated numerous project design features and construction measures into the project design that are included in an effort to reduce the potential for environmental effects. The Phase III project would incorporate the following project design features.

Aesthetics

The following measures would be implemented into the design and construction of the Phase III project to minimize potential effects on aesthetics to neighborhoods surrounding the Phase III project:

Demolition debris will be removed in a timely manner for off-site disposal.

Tree and vegetation removal will be limited to those depicted on construction drawings.

All roadway features (signs, pavement delineation, roadway surfaces, etc) and structures within state and private rights-of-way will be protected, maintained in a temporary condition, or restored.

Disturbed areas will be restored following construction consistent with original site conditions and surrounding vegetation. If necessary, a temporary irrigation system will be installed and maintained by CMWD or the City, or watering trucks will be used at a frequency to be determined by CMWD or the City to maintain successful plant growth. For proposed CIP pipeline projects that would require trenching or that would require the temporary removal of concrete or asphalt, the disturbed area will be repaved to be consistent with the existing material.

Air Quality

The following BMPs would be implemented to minimize fugitive dust emissions and other criteria pollutant emissions during construction of Phase III project:

Water or dust control agents will be applied to active grading areas, unpaved surfaces, and dirt stockpiles as necessary to prevent or suppress particulate matter from becoming airborne. All soil to be stockpiled over 30 days will be protected with a secure tarp or tackifiers to prevent windblown dust.

Covering/tarping will occur on all vehicles hauling dirt or spoils on public roadways unless additional moisture is added to prevent material blow-off during transport.

Soil handling operations will be suspended when wind gusts exceed 25 miles per hour. The construction supervisor will have a hand-held anemometer for evaluating wind speed.

Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadway will be swept or vacuumed and disposed of at the end of each workday to reduce resuspension of particulate matter caused by vehicle movement. During periods of soil export or import, when there are more than six trips per hour, dirt removal from paved surfaces will be done at least twice daily.

Disturbed areas will be revegetated as soon as work in the area is complete.

Electrical power will be supplied from commercial power supply wherever feasible, to avoid or minimize the use of engine-driven generators.

Air filters on construction equipment engines will be maintained in clean condition according to manufacturers' specifications.

The construction contractor will comply with an approved traffic control plan to reduce non-project traffic congestion impacts. Methods to reduce construction interference with existing traffic and the prevention of truck queuing around local sensitive receptors will be incorporated into this plan.

Staging areas for construction equipment will be located as far as practicable from residences.

Trucks and equipment will not idle for more than 15 minutes when not in service.

Biological Resources

The BMPs identified in the Carlsbad HMP would be implemented during the construction and operation of projects to minimize potential effects on biological resources:

Use BMPs to prevent pollution generated by construction activities from entering surface and groundwater. BMPs will also ensure that non-stormwater discharges are not discharged into stormwater drainage systems. BMPs may include:

- Regulatory measures such as erosion control ordinances and floodplain restrictions.
- Structural measures such as detention or retention basins, filters, weirs, check dams, or drainage diversions.
- Vegetative controls that reduce volume and accomplish pollutant removal by a combination of filtration, sedimentation, and biological uptake.
- Maintenance of pump stations, sewer lines, and stormwater conveyance systems.
- Cultural practices such as restrictions on pesticide and fertilizer applications, storage or disposal of toxic chemicals, or washing of vehicles or equipment in areas that can drain to the estuary.
- Public education programs that educate residences about proper disposal of oil or chemicals and that provide opportunities (e.g. designated locations) for residents to properly dispose of contaminants.

For clearing, grading, and other construction activities within the watershed, ensure that proper irrigation and stormwater runoff mitigation measures are employed to reduce sediment loads and to prevent contamination from pesticide, fertilizers, petroleum products, and other toxic substances.

Restrict or limit recreational or other activities within 200 feet of important forage, breeding, and roosting areas.

Require attenuation measures for activities that generate noise levels greater than 60 dBA if occurring within 200 feet of important breeding habitat during the nesting season.

Restrict construction hours to daytime hours that do not require the use of construction lighting.

Cultural and Paleontological Resources

The following procedure for unintentional disturbance of cultural resources will be implemented to minimize impacts to previously unknown archaeological resources during construction of Phase III project:

If subsurface cultural resources are encountered during CIP project construction, or if evidence of an archaeological site or other suspected cultural resources are encountered, all ground-disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the City or CMWD to assess the find, and to determine whether the resource requires further study. Any previously undiscovered resources found during construction will be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the City or CMWD for significance under all applicable regulatory criteria. No further grading will occur in the area of the discovery until the City and CMWD approves the measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will be donated to a qualified scientific institution approved by the City or CMWD where they would be afforded long-term preservation to allow future scientific study.

Geology and Soils

The following measures will be implemented into the construction and operation of Phase III project to minimize potential risks from geologic and soil hazards:

A site-specific geotechnical investigation will be completed during the engineering and design of each CIP project that would require excavation in previously undisturbed soil, which would determine the risk to the project associated with fault rupture, groundshaking, liquefaction, landslides, and expansive soils. The geotechnical investigations will describe site-specific conditions and make recommendations that will be

incorporated into the construction specifications for the CIP project. Recommendations may include, but would not be limited to the following typical measures:

- Over-excavate unsuitable materials and replace them with engineered fill.
- Remove loose, unconsolidated soils and replace with properly compacted fill soils, or apply other design stabilization features.
- For thicker deposits, implement an applicable compaction technique such as dynamic compaction or compaction piles.
- Perform in-situ densification of soils or other alterations to the ground characteristics.
- For landslides, implement applicable techniques such as stabilization; remedial grading and removal of landslide debris; or avoidance.

Hazards and Hazardous Materials

The following measures would be implemented into the construction to minimize potential effects related to hazards and hazardous materials:

Fire safety information will be disseminated to construction crews during regular safety meetings. Fire management techniques will be applied during project construction as deemed necessary by the lead agency and depending on-site vegetation and vegetation of surrounding areas.

A brush management plan will be incorporated during project construction by the City, CMWD, or a contractor, as necessary. Construction within areas of dense foliage during dry conditions will be avoided, when feasible.

Hydrology and Water Quality

The following measures would be implemented into the construction and operation of project components to minimize potential effects to hydrology and water quality:

A construction spill contingency plan will be prepared for new facilities in accordance with County Department of Environmental Health regulations and retained on site by the construction manager. If soil is contaminated by a spill, the soil will be properly removed and transported to a legal disposal site.

If groundwater is encountered and dewatering is required, then the groundwater will be disposed of by pumping to the sanitary sewer system or discharging to the storm drain system according to the conditions of the appropriate discharge permit.

Noise

The following measures would be implemented into the construction and operation of the project components to minimize noise effect to surrounding neighborhoods:

Heavy equipment will be repaired at sites as far as practical from nearby residences.

Construction equipment, including vehicles, generators and compressors, will be maintained in proper operating condition and will be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures).

Construction work, including on-site equipment maintenance and repair, will be limited to the hours specified in the noise ordinance of the affected jurisdiction.

Electrical power will be supplied from commercial power supply, wherever feasible, in order to avoid or minimize the use of engine-driven generators.

Staging areas for construction equipment will be located as far as practicable from residences.

Operating equipment will be designed to comply with all applicable local, state, and federal noise regulations.

If lighted traffic control devices are to be located within 500 feet of residences, the devices will be powered by batteries, solar power, or similar sources, and not by an internal combustion engine.

CMWD or their construction contractors will provide advance notice, between two and four weeks prior to construction, by mail to all residents or property owners within 300 feet of the alignment. For projects that would require pile driving or blasting, noticing will be provided to all residents or property owners within 600 feet of the alignment. The announcement will state specifically where and when construction will occur in the area. If construction delays of more than 7 days occur, an additional notice will be made, either in person or by mail.

CMWD will identify and provide a public liaison person before and during construction to respond to concerns of neighboring residents about noise and other construction disturbance. The CMWD will also establish a program for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person will be included in notices distributed to the public in accordance with the information above.

Transportation/Traffic

The following measures would be implemented during construction of the Phase III project to minimize traffic effects to surrounding neighborhoods:

Prior to construction, the City will prepare a traffic control plan and coordinate with the cities of Oceanside, Vista, and San Marcos to address traffic during construction of project components within the public right-of-ways of the affected jurisdiction(s), including bicycle, pedestrian, and transit facilities. The traffic control plan will include signage and flagmen when necessary to allow the heavy equipment to utilize residential streets. The traffic control plan will also include provisions for coordinating with local school hours and emergency service providers regarding construction times.

This page intentionally left blank.

Appendix B
Sensitive Biological Resources Tables

Sensitive Natural Communities Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Community	Global Rank[1]	State Rank[2]	MHCP Habitat Group[3]	Mitigation Ratio[4]
Non-native grassland	G4	S4	E	0.5:1
Valley needlegrass grassland	G1	S3.1	B	3:1
Diegan coastal sage scrub	G3	S3.1	C	2:1
Diegan coastal sage – chaparral scrub	G3	S3.2	C	2:1
Chamise chaparral	G4	S4	D	1:1
Scrub oak chaparral	G3	S3.3	D	1:1
Southern maritime chaparral	G1	S1.1	B	3:1
Southern mixed chaparral	G4	S4	D	1:1
Coast live oak woodland	G4	S4	B	3:1
Southern coastal live oak riparian forest	G3	S4	A	3:1 (No Net Loss)
Southern riparian forest	G4	S4		
Southern riparian scrub	G3	S3.2		
Coastal and valley freshwater marsh	G3	S2.1		
San Diego mesa claypan vernal pool	G2	S2.1	A	5:1

(1) **Global Rank–**The global rank is a reflection of the overall status of an element throughout its global range. **G1 = Critically Imperiled**–At very high risk of extinction due to extreme rarity, very steep declines, or other factors. Less than 6 viable element occurrences or less than 1,000 individuals or less than 2,000 acres. **G2 = Imperiled–**At high risk of extinction due to very restricted range, very few populations, steep declines, or other factors. Estimated 6-20 viable occurrences or 1,000-3,000 individuals or 2,000-10,000 acres. **G3 = Vulnerable**–At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors. Estimated 21-80 occurrences or 3,000-10,000 individuals or 10,000-50,000 acres. **G4 = Apparently Secure**–Uncommon but not rare; some cause for long-term concern due to declines or other factors. This rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.

(2) **State Rank–**The state rank refer to the imperilment status only within California's State boundaries. **S1 = Critically Imperiled**–Critically imperiled in the state because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province. Less than 6 occurrences or less than 1,000 individuals or less than 2,000 acres. **S1.1** = very threatened; **S1.2** = threatened; **S1.3** = no current threats known.

S2 = Imperiled–Imperiled in the state because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province. Estimated 6-20 occurrences or 1,000-3,000 individuals or 2,000-10,000 acres. **S2.1** = very threatened; **S2.2** = threatened; **S2.3** = no current threats known. **S3 = Vulnerable**–Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. Estimated 21-80 occurrences or 3,000-10,000 individuals or 10,000 -50,000 acres. **S3.1** = very threatened; **S3.2** = threatened; **S3.3** = no current threats known; **S4 = Apparently Secure**—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

(3) **MHCP Rank**–Habitat types located within the planning area of the MHCP have been assigned to Groups A – F based on the sensitivity and range of habitat within the planning area boundaries. Generally, Group A habitats are the most sensitive and Group F habitats are the least sensitive.

(4) Mitigation ratios may increase or decrease depending on the resources present and where the impact and mitigation is proposed, as approved by the regulatory agencies and/or local jurisdiction in which the impact and mitigation occurs.

Source: CNDDB 2012; CNPS 2010; City of Carlsbad 2004; AMEC et. al. 2003; Ogden et. al. 1998

Special Status Plant Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	General Habitat Associations
NON-VASCULAR					
bottle liverwort	*Sphaerocarpos drewei*			1B.1	Chaparral, coastal scrub.
California screw moss	*Tortula californica*			1B.2	Chenopod scrub, valley and foothill grassland.
Campbell's liverwort	*Geothallus tuberosus*			1B.1	Coastal scrub, vernal pools.
coastal triquetrella	*Triquetrella californica*			1B.2	Coastal bluff scrub, coastal scrub.
Shevock's copper moss	*Schizymenium shevockii*			1B.2	Cismontane woodland.
ashy spike-moss	*Selaginella cinerascens*			4.2	Coastal sage scrub, chaparral.
Fern					
California adder's-tongue fern	*Ophioglossum lusitanicum ssp. californicum*			4.2	Chaparral, grasslands, vernal pools.
Angiosperms - Monocotyledons					
California Orcutt grass	*Orcuttia californica*	FE	SE	1B.1	Vernal pools.
Orcutt's brodiaea	*Brodiaea orcuttii*			1B.1	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows.
San Diego goldenstar	*Muilla clevelandii*			1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools.
Shaw's agave	*Agave shawii*			2.1	Coastal bluff scrub, coastal scrub.
thread-leaved brodiaea	*Brodiaea filifolia*	FT	SE	1B.1	Cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools.
Angiosperms - Dicotyledons					
Blochman's dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*			1B.1	Coastal scrub, coastal bluff scrub, valley and foothill grassland.
California adolphia	*Adolphia californica*			2.1	Chaparral, coastal sage scrub, valley and foothill grassland.
chaparral sand-verbena	*Abronia villosa* var. *aurita*			1B.1	Chaparral, coastal scrub.
cliff spurge	*Euphorbia misera*			2.2	Coastal bluff scrub, coastal scrub.
Coulter's goldfields	*Lasthenia glabrata* ssp. *coulteri*			1B.1	Coastal salt marshes, playas, valley and foothill grassland, vernal pools.
Dean's milk-vetch	*Astragalus deanei*			1B.1	Chaparral, coastal scrub, riparian forest.
decumbent goldenbush	*Isocoma menziesii* var. *decumbens*			1B.2	Coastal scrub.
Del Mar manzanita	*Arctostaphylos glandulosa* ssp. *crassifolia*	FE		1B.1	Chaparral, closed-cone coniferous forest.
Del Mar Mesa sand aster	*Corethrogyne filaginifolia* var. *linifolia*			1B.1	Chaparral, coastal scrub.
dwarf burr (San Diego) ambrosia	*Ambrosia pumila*	FE		1B.1	Chaparral, coastal scrub, valley and foothill grassland.
Encinitas baccharis	*Baccharis vanessae*	FT	SE	1B.1	Chaparral.

Special Status Plant Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]	General Habitat Associations
Engelmann oak	*Quercus engelmannii*			4.2	Chaparral, coast live oak woodland, grassland.
Gambel's water cress	*Nasturtium gambelii*	FE	ST	1B.1	Marshes and swamps.
little mousetail	*Myosurus minimus* ssp. *apus*			3.1	Vernal pools.
many-stemmed dudleya	*Dudleya multicaulis*			1B.2	Chaparral, coastal scrub, valley and foothill grassland.
Moran's navarretia	*Navarretia fossalis*	FT		1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas.
mud nama	*Nama stenocarpum*			2.2	Marshes and swamps.
Nuttall's scrub oak	*Quercus dumosa*			1B.1	Closed-cone coniferous forest, chaparral, coastal scrub.
Orcutt's hazardia	*Hazardia orcuttii*	FC	ST	1B.1	Chaparral, coastal scrub.
Orcutt's linanthus	*Linanthus orcuttii*			1B.3	Chaparral.
Orcutt's spineflower	*Chorizanthe orcuttiana*	FE	SE	1B.1	Coastal scrub, chaparral, closed-cone coniferous forest.
Palmer's goldenbush	*Ericameria palmeri* ssp. *palmeri*			2.2	Coastal scrub, chaparral.
Parry's tetracoccus	*Tetracoccus dioicus*			1B.2	Chaparral, coastal scrub.
prostrate vernal pool navarretia	*Navarretia prostrata*			1B.1	Coastal scrub, valley and foothill grassland, vernal pools.
Rainbow manzanita	*Arctostaphylos rainbowensis*			1B.1	Chaparral.
Robinson's pepper-grass	*Lepidium virginicum* var. *robinsonii*			1B.2	Chaparral, coastal scrub.
round-leaved filaree	*California macrophylla*			1B.1	Cismontane woodland, valley and foothill grassland.
San Diego barrel cactus	*Ferocactus viridescens*			2.1	Chapparal, Diegan coastal scrub, valley and foothill grassland.
San Diego bur-sage	*Ambrosia chenopodiifolia*			2.1	Coastal scrub mostly associated with maritime succulent scrub.
San Diego button-celery	*Eryngium aristulatum* var. *parishii*	FE	SE	1B.1	Vernal pools, coastal scrub, valley and foothill grassland.
San Diego marsh-elder	*Iva hayesiana*			2.2	Marshes and swamps, playas.
San Diego sagewort	*Artemisia palmeri*			4.2	Riparian, wetland, adjacent uplands.
San Diego thorn-mint	*Acanthomintha ilicifolia*	FT	SE	1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools.
smooth tarplant	*Centromadia pungens* ssp. *laevis*			1B.1	Valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodland.
snake cholla	*Opuntia californica* var. *californica*			1B.1	Chaparral, coastal scrub.

Special Status Plant Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[(1)]	State Status[(2)]	CNPS List[(3)]	General Habitat Associations
southern tarplant	*Centromadia parryi* ssp. *australis*			1B.1	Marshes and swamps (margins), valley and foothill grassland.
Southwestern spiny rush	*Juncus acutus var. leopoldii*			4.2	Riparian, wetlands, vernal pools.
summer holly	*Comarostaphylis diversifolia* ssp. *diversifolia*			1B.2	Chaparral.
variegated dudleya	*Dudleya variegata*			1B.2	Chaparral, coastal scrub, cismontane woodland, valley and foothill grassland.
wart-stemmed ceanothus	*Ceanothus verrucosus*			2.2	Chaparral.
Western dicondra	*Dichondra occidentalis*			4.2	Coastal sage scrub.
willowy monardella	*Monardella viminea*	FE	SE	1B.1	Coastal scrub/alluvial ephemeral washes with adjacent coastal scrub, chaparral, or sycamore woodland.

(1) **Federal Status – FE =** Federally Endangered; **FT =** Federally Threatened; **FC =** Candidate for federal listing; **FD =** Delisted

(2) **State Status – SE =** State Endangered; **ST =** State Threatened

(3) **CNPS – 1A =** Plants presumed extinct in California; 1B = Plants rare, threatened, or endangered in California and elsewhere; **2 =** Plants rare, threatened, or endangered in California, but more common elsewhere; **3 =** Plants in need of more information; **4 =** Plants of limited distribution. **x.1** = Seriously endangered in California (>80% of occurrences threatened or high degree and immediacy of threat). **x.2** = Fairly endangered in California (20-80% of occurrences threatened). **x.3** = Not very endangered in California (<20% of occurrences threatened or no current threats known)

Source: CDFG 2012; CNPS 2012; Consortium 2010; City of Carlsbad 2004; AMEC et. al. 2003; Ogden et. al.1998

Special Status Wildlife Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[1]	State Status[2]	General Habitat Associations
INVERTEBRATES				
Crustaceans				
Riverside fairy shrimp	*Streptocephalus woottoni*	FE		Found in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub habitats.
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE		Vernal pools.
Insects				
Hermes copper butterfly	*Lycaena hermes*			Found in southern mixed chaparral and coastal sage scrub at western edge of Laguna mountains.
Harbison's dun skipper	*Euphyes vestries harbisoni*			Riparian woodland, riparian scrub, oak woodland.
Monarch butterfly	*Danaus plexippus*			Roosts located in wind-protected tree groves, such as eucalyptus, Monterey pine, and cypress trees where nectar and water sources are available.
AMPHIBIANS				
Arroyo toad	*Bufo californicus*	FE	SSC	Semi-arid regions near washes, rivers, or intermittent streams, including valley-foothill and desert riparian areas and desert washes.
Coast Range newt	*Taricha torosa torosa*		SSC	Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs, coastal drainages, or slow moving streams.
Western spadefoot	*Spea hammondii*		SSC	Occurs primarily in ponds located in grassland habitats, but can be found in valley-foothill hardwood woodlands.
REPTILES				
Coast (San Diego) horned lizard	*Phrynosoma coronatum* (blainvillii population)		SSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions.
Coast patch-nosed snake	*Salvadora hexalepis virgultea*		SSC	Brushy or shrubby vegetation in coastal southern California.
Coastal western whiptail	*Aspidoscelis tigris stejnegeri*			Found in deserts and semiarid areas with sparse vegetation and open areas and in woodland and riparian areas.
Coronado skink	*Eumeces skiltonianus interparietalis*		SSC	Found in grassland, chaparral, pinyon-juniper and juniper sage woodland, and pine-oak and pine forests.
Northern red-diamond rattlesnake	*Crotalus ruber ruber*		SSC	Found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains.
Orange-throated whiptail	*Aspidoscelis hyperythra*		SSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.
Rosy boa	*Charina trivirgata*			Found in desert and chaparral habitats from the coast to the Mojave. Prefers moderate to dense vegetation and rocky cover.
San Diego ringneck snake	*Diadophis punctatus similis*			Found in open, fairly rocky areas and in moist areas near intermittent streams.

Special Status Wildlife Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[1]	State Status[2]	General Habitat Associations
Silvery legless lizard	*Anniella pulchra pulchra*		SSC	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks, where soil is moist.
Southwestern pond turtle	*Actinemys marmorata pallida*		SSC	Inhabits permanent or nearly permanent bodies of water in many habitat types below 6,000 feet.
Two-striped garter snake	*Thamnophis hammondii*		SSC	Found in or near permanent fresh water and often along streams with rocky beds and riparian growth.
BIRDS				
American peregrine falcon	*Falco peregrinus anatum*	FD	SE	Found near wetlands, lakes, rivers, or other water or on cliffs, banks, dunes, or mounds.
Bank swallow	*Riparia riparia*		ST	Nests primarily in riparian and other lowland habitats west of the desert.
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*		SE	Inhabits coastal salt marshes.
Bell's sage sparrow	*Amphispiza belli belli*		WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.
Burrowing owl	*Athene cunicularia*		SSC	Open, dry annual, or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.
California horned lark	*Eremophila alpestris actia*		WL	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*		SSC	Coastal sage scrub with tall *Opuntia* cactus for nesting and roosting.
Coastal California gnatcatcher	*Polioptila californica californica*	FT	SSC	Low, coastal sage scrub in arid washes, on mesas, and on slopes.
Cooper's hawk	*Accipiter cooperii*		WL	Open, interrupted, or marginal type woodland. Nest sites mainly found in riparian growths of deciduous trees in canyon bottoms on river flood-plains.
Double-crested cormorant	*Phalacrocorax auritus*		WL	Found on coastal cliffs, offshore islands, and along lake margins in the interior of the State.
Ferruginous hawk	*Buteo regalis*		WL	Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats.
Golden eagle	*Aquila chrysaetos*	FD	SE, SFP	Rolling foothills, mountain areas, sage-juniper flats, and desert.
Grasshopper sparrow	*Ammodramus savannarum*		SSC	Favors native grasslands with a mix of grasses, forbs, and scattered shrubs.
Large-billed savannah sparrow	*Passerculus sandwichensis rostratus*		SSC	Salt marsh.
Least Bell's vireo	*Vireo bellii pusillus*	FE	SE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.
Least bittern	*Ixobrychus exilis*		SSC	Found in marshlands and borders of ponds and reservoirs which provide ample cover.

Special Status Wildlife Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[1]	State Status[2]	General Habitat Associations
Light-footed clapper rail	*Rallus longirostris levipes*	FE	SE	Sal marsh.
Loggerhead shrike	*Lanius ludovicianus*		SSC	Broken woodlands, savannah, pinyon-juniper, joshua tree, and riparian woodlands, desert oasis', scrub and washes.
Long-eared owl	*Asio otus*		SSC	Riparian bottomlands with tall willows, cottonwoods, or coast live oaks adjacent to open land with ample prey.
Northern harrier	*Circus cyaneus*		SSC	Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain marshes.
Osprey	*Pandion haliaetus*		WL	Ocean shore, bays, fresh-water lakes, and larger streams.
Prairie falcon	*Falco mexicanus*		WL	Inhabits dry, open terrain, either level or hilly.
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*		WL	Found in coastal sage scrub and sparse mixed chaparral.
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE	SE	Riparian woodlands.
Tricolored blackbird	*Agelaius tricolor*		SSC	Requires open water, protected nesting substrate, and foraging area with available insect prey.
Western snowy plover	*Charadrius alexandrinus nivosus*	FT	SSC	Sandy beaches, salt pond levees, and shores of large alkali lakes.
White-faced ibis	*Plegadis chihi*		WL	Shallow fresh-water marsh.
White-tailed kite	*Elanus leucurus*		SFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging.
Yellow warbler	*Dendroica petechia brewsteri*		SSC	Prefers riparian plant associations such as willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also, found in montane shrubbery in open conifer forests.
Yellow-breasted chat	*Icteria virens*		SSC	Summer resident that inhabits riparian thickets of willow and other brushy tangles near watercourses.
MAMMALS				
American badger	*Taxidea taxus*		SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.
Hoary bat	*Lasiurus cinereus*			Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees.
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*		SSC	Found in coastal scrub, chaparral, grasslands, and sagebrush.
Pacific pocket mouse	*Perognathus longimembris pacificus*	FE	SSC	Found within 4 km of the coast on fine-grained sandy substrates in coastal sage scrub, coastal strand, and river alluvium.
Pallid bat	*Antrozous pallidus*		SSC	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.

Special Status Wildlife Species Reported or Potentially Occurring within Carlsbad and CMWD Service Area

Common Name	Scientific Name	Federal Status[(1)]	State Status[(2)]	General Habitat Associations
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*		SSC	Found in coastal sage scrub with intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges.
San Diego desert woodrat	*Neotoma lepida intermedia*		SSC	Moderate to dense canopies of coastal scrub. Abundant in rock outcrops, rocky cliffs, and slopes.
Townsend's big-eared bat	*Corynorhinus townsendii*		SSC	Found in moist coastal forest to semi-desert scrublands, near riparian areas and wetlands.
Western mastiff bat	*Eumops perotis californicus*		SSC	Found in many open and semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral.
Western red bat	*Lasiurus blossevillii*		SSC	Prefers riparian areas dominated by cottonwoods, oaks, sycamores, and walnuts.
Western small-footed myotis	*Myotis ciliolabrum*			Found in a wide range of habitats near water, including arid wooded, brushy uplands, and open stands in forests and woodlands. Seeks cover in caves, buildings, mines and crevices
Western yellow bat	*Lasiurus xanthinus*		SSC	Found in valley foothill riparian, desert riparian, desert washes, and palm oasis habitats.
Yuma myotis	*Myotis yumanensis*			Optimal habitats are open forests and woodlands with sources of water over which to feed.
Southern mule deer	*Odocoileus hemionus*			Variety of habitats over a broad range.

(1) **Federal Status – FE =** Federally Endangered; **FT =** Federally Threatened; **FC =** Candidate for federal listing; **FD =** Delisted

(2) **State Status – SE =** State Endangered; **ST =** State Threatened; **SFP =** State Fully Protected; **SSC =** State Species of Special Concern; **WL =** State Watch List

Source: CDFG 2012; City of Carlsbad 2004; AMEC et. al. 2003; Ogden et. al. 1998